

An Assessment on the Development of Agricultural Initiatives for USAID/CAR

USAID/CAR Task Order: Central Asia Agricultural Assessment RAISE IQC Contract No.: PCE-I-818-99-00003-00

Uzbekistan

Fergana City, May 25 – 28, 2003 Tashkent, May 29 – June 3, 2003

Submitted to:

Wayne McDonald, Program Officer Cognizant Technical Officer U.S. Agency for International Development Central Asia Regional Mission

Submitted by:

Chemonics International Inc.
Prime International Inc.

TABLE OF CONTENTS

Executive Summary		i
Terminology		xi
Acronyms		xi
SECTION A	Overview	1
	A1. Task Order Objectives	1
	A2. Perspectives and Methodology	2
	A3. Documents Used in This Report	2
SECTION B	Components	3
	B1. Examination of the Agricultural Sector	3
	B2. Examination of Donor Programs	43
	B3. Recommendations to the Mission	64
ANNEX A:	Uzbekistan Country Profile, Library of Congress	A-1
ANNEX B:	Decree of the President of the Republic of Uzbekistan	B-1
ANNEX C:	Types of Farms in Uzbekistan	C-1
ANNEX D:	Contact List for Uzbekistan	D-1

EXECUTIVE SUMMARY

The agricultural potential of Uzbekistan has not been realized because of the Government of Uzbekistan's (GOU) economic strategy of strong centralized control of resources and detailed planning of production, trade, and investment in agriculture, energy, and industry. Taxing agriculture finances development of the industrial and energy sectors and directing the production and sale of cotton and wheat enables the government to control most of the country's foreign exchange.

A centerpiece of state control of cotton and wheat production is control of inputs and markets. Cotton revenues to the state are controlled through state procurement system and value added taxes (VAT). Wheat is controlled through the export ban. Fertilizers, agricultural chemicals, and seed are provided to the farmers at low state-determined prices.

Meaningful reform may be on its way. The March 2003 Presidential decree focuses on boosting lease ownership and contract-based management systems and encouraging farmer units as the main driving force in agricultural production. Beginning in 2004, all *shirkat* and farmer units are to be transferred to a "leased-based utilization of croplands."

The World Bank and Asian Development Bank (ADB) have established programs with conditions that farmers be released from state orders, given lower state orders, or given more flexibility in state order pricing to give them higher incomes. Their ultimate effect is likely to be modest given that the government, for cotton at least, is the only ultimate buyer and controls all exports. These modest pilots do help solve social and economic problems in some districts at little cost to the government.

The government rhetoric presents opportunities for carefully targeted interventions designed to help the government live up to the spirit and letter of its announcements. More important, through properly executed programs, donors may help the government develop policy approaches that implement the decree and promote the development of an open market. A broader base private enterprise system is needed to increase leverage against the government to enable even greater reform.

Private enterprise activity is strongest in the fruit and vegetable and livestock sub-sectors, which should be the primary areas of focus for technical assistance. Assisting the government to give full leasehold rights to land enabling the lease to be mortgaged, for example, can provide valuable collateral for lenders. Helping the government fully privatize the remaining state ownership in the food-processing sector could develop a strong industry with good export producing potential.

Organizing private producers and processors

The government provides directives for industry and agriculture through associations that coordinate and facilitate enterprise and farm activities. Small farmers and SMEs may be members of industry and farmer associations but also operate in the cash economy outside the government control.

The "companies law" provides for organization and registration of private associations as joint stock companies or as nongovernmental organizations (NGOs). Association incorporators must carefully determine what functions they expect the association to fulfill before determining which organizational form to use. It remains to be seen if an NGO can convert to a profit oriented joint stock company if the membership later decides that it wants to expand into some commercial activities.

Banking, Microfinance Institutions, and Credit Unions

The GOU dominates commercial banking. The National Bank for Foreign Economic Relations of the Republic of Uzbekistan (NBU), a wholly owned government bank, operates as a commercial bank and is one of the largest banks in the region. The NBU operates as the government's fiscal agent in international markets and conducts savings, project finance, investment, export-import and commercial banking function for the government.

In the near term, agricultural producers are more likely to receive financing from the current government program—State Fund for Agricultural Purchases—credit unions, microfinance institutions, export financed production, family and friends, and other informal sources. Even the small loans they provide will enable farmers to substantially increase their household plot or private farm production with good profit margins, and eventually access commercial bank financing.

Targeted donor resources can facilitate farmer use of all available financing resources and methods, teach them how to present their farming operations in the best light for a financial institution, actively market to interested financial institutions the most promising farm customers, and provide farmers with valuable farm enterprise management training that educates them on developing appropriate financial records on their operations.

Most Uzbek banks and the major leasing companies are government owned, controlled, or directed. The IFC reports that in 2002 new leases of Uzbek leasing companies grew by 48 percent and new leases of banks grew by 30 percent. Assessment of these trends requires some caution. Uzbek Leasing, a government-owned company, holds more than 80 percent of all leases, primarily financing Uzbek manufactured equipment. The government provides substantial subsidies to other leasing companies to lease Uzbek manufactured equipment.

Land and water reform

Reform and restructuring of *sovholzes* and *kolkholzes* into *shirkats* and *dekhan* farms did not substantively change government control of cotton production or revenues. The reforms gave farmers modest flexibility in meeting state cotton and wheat orders allowing them small land and production opportunities for production for themselves that they could freely sell. Farmers continue to work on *shirkat* farms for state orders of cotton and wheat because the farms provide access to inputs, and the farmers fear that the government will take away the private and *dekhan* farms if cotton and wheat production falls.

Fruit, vegetable, eggs, and small livestock production has largely been a private sector production. In fact, more than 65 percent of the output of the entire Uzbekistan agricultural sector was produced on *dehkan* farms and household plots. Reports are common that farmers lose money on both cotton and wheat production, but manage to eke out a profit from their household plot.

Uzbekistan agriculture depends on irrigated production of four million hectares of cotton, grain, or fodder. Due primarily to the deterioration of irrigation and drainage infrastructure, water delivery is wasteful—on the average at least 50 percent of water is lost between the water source and the fields. The cost of delivering water accounts for almost all the state budget for agriculture—some \$200 million per year. Some cost recovery is included in the land tax.

Thirty-five percent of local officials interviewed stated that water problems are the most urgent ones facing their districts. The over-use of irrigated water is damaging the environment and reducing crop yields. A new Water Code is expected in the first quarter of 2004 that will likely create a structure for basin water management and introduce prices for water services delivery, maybe gradually applied. Now, as result of farm restructuring and proposed changes for water management, the farmers are encouraged to form Water Users' Associations (WUAs).

General integrated agriculture and water resource development model

The consultants recommend that USAID consider designing an integrated agriculture and water resource development activity adapted to local conditions within Uzbekistan. We use the term integrated from two perspectives: 1) the integration of value-chain participants (production, processing, marketing, allied industries, and market intermediaries) into a systems approach; and 2) the integration of mutually beneficial donor funded activities into a targeted geographic area to capture potential synergies among existing donor projects.

Within a geographic area the integrated approach would focus existing resources in pilot hydrographic units based on proximity to existing donor resources. This activity would also focus on agro-industries in the water unit such as a fruit and vegetable or cotton industry. Why target enterprises within a hydrographic unit? There are a number of reasons, notably, enterprises in a hydrographic unit: 1) share similar agro-climatic conditions, 2) are part of a common and structured community, 3) share similar constraints and opportunities for growth, 4) have a common enabling/regulatory environment, 5) can provide a more effective water management approach, and 6) enhance the ability to foster necessary cooperation and trust.

The rationale for an integrated approach is based on the need to: 1) facilitate transition from Soviet planned agriculture to market-oriented system, 2) focus on land issues because many agricultural development issues revolve around land rights, ownership, use, including the ability to buy sell and mortgage land, 3) mediate, if not resolve, land tenure and water management issues, 4) recognize sustainable agricultural development including production, processing, finance, and marketing activities, and 5) create synergies among donor projects by focusing diversified resources on common problems.

The primary goal of this approach would be to demonstrate to the GOU how to achieve sustainable growth, through increased efficiency, in agricultural production, processing, and

marketing enterprises and the networks in which they operate. Secondary to this goal, the approach will help: 1) reduce poverty, 2) manage natural resources, 3) contribute to national food security objectives, 4) ensure increased revenues for agricultural producers and rural citizens, and 5) build private/public partnerships, sustainable enterprise, and linkages among participating beneficiaries. These goals are consistent with government strategies and thus their willingness to support targeted pilot programs.

Critical issues

The primary criteria for the selection of a targeted geographic area (hydrographic unit), is the presence of significant donor activity. Implement where resources are available and strive to create synergies among existing projects.

Caution. The consultants are not suggesting that USAID and other donor projects integrate their entire work plans to focus on this single geographic or hydrographic unit. We recognize that that would be impractical, if not impossible. What we are suggesting, however, is that the individual projects can dedicate a small portion of their expertise and resources to collaborate in the development of the integrated approach in the target area. For example, in the case of Kyrgyzstan, the LARC project has 18 offices in Kyrgyzstan, so let us suggest that they locate one office in the target area. Likewise, GTZ conducts agronomic training for farmers throughout Osh and other regions. They will be requested to implement a number of their well developed training modules in the target area. Also, IFDC can implement one demonstration field; MASHAV can implement one drip irrigation activity, etc. The consultants believe that limited, agreed upon, and targeted collaboration is possible within a defined geographic area and will produce the synergies expected to the mutual benefit of all participants.

Coordination and management. To be effective, USAID should designate a senior coordinator—a "czar"—to manage the recommended integrated activity. The "czar" should: 1) have extensive business development experience, 2) be able to work independently from any one project, 3) be mandated to liaise with projects, donors and officials, 4) be responsible for developing donor project "integration strategy," 5) have the authority to negotiate individual MOUs with all pertinent projects, 6) be responsible for monitoring and evaluating impact, 7) facilitate intercountry linkages, 8) be tasked with the collection donor project data on needed policy reform that can be used to foster agro-industrial growth, and 9) be responsible for the dissemination policy reform data and memoranda to interested trade associations and business groups who are able to advocate for policy reform.

Approach

The Integrated Agriculture and Water Resource Development Activity could be organized into the following four components that correspond with the components of existing donor projects, such as the EDP project:

- A: Agro-industry Strategy Development and Policy Reform
- B: Association and/or member organization development
- C: Business Advisory Services
- D: Business and Market Linkages

Component A: Agroindustry Strategy Development and Policy Reform

This component would respond to two important needs: 1) agro-industries lack comprehensive strategies for their own development, and 2) agro-industry entrepreneurs can and should lead policy reform efforts.

- Agroindustry strategy development: The objective of an agro-industry strategy
 development would be to bring entrepreneurs together in order to develop agroindustry strategies, where strategies define objectives, constraints, and resource
 requirements and inform specific action plans. These strategies would be used to
 orient TA to focus on opportunities and constraint mitigation.
- Policy reform: The objective of the policy reform activity would be to condition the
 enabling environment in which these enterprises operate. This would be
 accomplished by: identifying and prioritizing policy constraints throughout value
 chain (coordinate information sharing); utilizing agro-industry council's local
 knowledge and influence to promote policy reform; and by collaborating with
 associations and NGO's to advocate for reform.

Component B: Association and/or Member Organization Development

The objective of an association development component would be to encourage entrepreneurs to form effective member organizations in order to collaborate on 1) joint procurement and marketing mechanisms, 2) organized information diffusion, 3) recurrent training and capacity building, and 4) increase the market orientation of members and democratic processes.

There are different legal forms of member organizations and consideration should be given, depending on resources available in the targeted area. The fundamental question is to focus on a traditional association model or a corporate structure such as the IFC farmer ownership model.

Component C: Business Advisory Services

The objective of the business advisory services is to increase business capabilities of producers, processors, and market intermediaries. The following needs have been identified for each of these three groups:

- Producers (land users) have limited or no agronomic or animal husbandry education, resource management training, market knowledge, or business skills
- Processors are reliant on old technologies and methods, are not market-oriented, unable to access credit, and they often collude with government
- Market intermediaries provide limited services.

Component D: Business and Market Linkages

The objective of the business and market linkages component is to facilitate linkages among participants in agro-industry value chain, such as producer-processor linkages, finance linkages, market linkages, and public-private linkages.

The objective of the finance linkages task would be to facilitate financial linkages between borrowers and creditors, in that there is a need to provide a menu of financial options depending on country's formal financial climate.

Recommendations for Uzbekistan:

Recommendation 1: Fergana/Andegon - Integrated agriculture and water resource development activity

Implementing the integrated approach described above in Fergana/Andegon should be a high priority for USAID because of the direct benefits to Uzbekistan as well as benefits for any regional initiatives in the Fergana Valley.

Recommendation 2: Application of the IFC farmer ownership model

The consultants were impressed with the IFC Farmer Ownership Model's attempts to resolve constraints on agricultural production, processing, and marketing for its membership. Utilizing an organization for the provision of technical assistance to improve production efficiency, resolve linkages with processors, and support marketing initiatives for its members is a fine example of an integrated approach to agricultural development. We note that although the organization currently focuses on cotton production, processing, and marketing, it is also involved in the fruit and vegetable industry.

Recommendation 3: Establish legal advisory centers

The consultants believe that the legal advisory services project implemented in Kyrgyzstan by Helvetas, with USAID support, provides desperately needed legal advice to rural farmers. This successful model should be expanded or applied in Uzbekistan to include land and water user rights education as well. These advisory centers would offer an effective complement to the business advisory centers already supported by USAID.

Expand or apply the Kyrgyzstan LARC program to Uzbekistan to: 1) facilitate the provision of legal advisory services to local farmers regarding land and water rights, state order, inputs contracts, freedom of production decision, right to market produce, grower delivery contracts with processors or associations, etc., 2) provide explanation and publicity of land rights of all newly privatized farms, 3) provide mediation services to local farmers regarding national and local government, and 4) facilitate preparation of grower and deliver contracts for promoting private vertical integration of production and processing.

Recommendation 4: Provide training/skill development in agricultural finance

Banker training is primarily intended in Uzbekistan for credit union and MFI loan officers having a substantial agricultural customer base. Banker training should be offered to all Uzbek banks, particularly the smaller banks, to enhance their skills for making agricultural loans as these banks complete the transformation to more commercial enterprises occurs. Borrower training is suggested for private farmers, small and medium agribusinesses, and other entrepreneurs active in the agricultural sector.

- Agricultural production credit and agro-industrial and food processing cash flow and credit analysis training for commercial bank officers of banks interested in learning how to finance the sector or improving their performance.
- Borrower training of promising agro-industrial businesses (food processors, wholesalers, processing and marketing associations of producers).
- Technical assistance in seeking non-bank credit for agricultural production—supplier credit, processor credit, trade credit.
- Work with bankers and processors to develop a working capital financing formula that gives processors needed financing and bankers secure comfort of repayment or collection upon default.

Recommendation 5: Provide independent policy review support for credit unions and microfinance institutions

If USAID adopts the integrated model recommended above and places a full-time "czar" to coordinate implementation, then one of the most important policy review tasks of this person relates to monitoring Uzbek finance policies to prevent a likely attempt to take over or control the credit union and MFI market created by donors.

There are several reasons for this recommendation: 1) credit unions have developed rapidly and generated strong public confidence in placing some savings in credit unions and taking loans that are agricultural and SME oriented, 2) government has liquidity problems and may seek to seek deposits aggressively, 3) credit unions must clear liquidity through an Uzbek commercial bank, and 4) Uzbek government is interested in developing state-owned and controlled MFI capability as an alternative.

Recommendation 6: Application of USDA-type mediation services

USDA has an established mediation program for providing mediation services, training of mediators, and trainers of trainers to develop a cadre of professionals to serve rural mediation needs. These services cover the complexities of USDA, EPA and other government policies, regulations, permits, licenses, and regulatory control, such as government agricultural loan programs, water user association disputes. For example, USDA mediators have successfully mediated very complex water management issues, such as mediation in Arizona where several

parties were in dispute over water management including Indian nations; state, city, county and town governments, federal and state water project authorities, major agricultural users, and industrial users of water.

Regional issues

The consultants recommend that USAID consider the potential benefits of developing a Ferghana Valley approach that further integrates Kyrgyz (Osh), Uzbek (Ferghana), and Tajik (Khujand/Isfara) activities.

The Enterprise Development Project (EDP) offices in Osh, Ferghana, and Khujand offer a unique opportunity to advocate enhanced regional trade. EDP has already implemented joint tricountry trade workshops focused on increased trade amongst the three countries. These initiatives should be enhanced with participation with other donor projects to create desired synergies. The proposed Fergana Valley seal of quality is an example of the type of regional initiative that could facilitate regional trade and further market integration.

TERMINOLOGY AND ACRONYMS

TERMINOLOGY

Dekhan Small private farms of 3 to 5 hectares resulting from the privatization of state

(sovholzes) and collective (kolkhozes) farms

Hukumat Raion governmental unit

Hakim A general term for head of region, district, city or town administration

Kolkholz Cooperative farm created during Soviet times
Oly Majlis Parliament of the Republic of Uzbekistan

Pudrat Individual private farms

Raivodhoz District department of the MOAWR
Shirkat Privatized kolkhoz or cooperative farm

Soum Official currency of Uzbekistan Sovholz State farm created in Soviet times.

ACRONYMS

ABA American Bar Association ADB Asian Development Bank

BIS Bank for International Settlements

CAIP Community Assistance Investment Program

CAR Central Asian Republic CBU Central Bank of Uzbekistan

CEELI Central and Eastern European Law Institute
CIDA Canadian International Development Association

CPC Crop Protection Chemicals

EBRD European Bank for Reconstruction and Development

EF Enterprise and Finance
EW Energy and Water
F&V Fruit and Vegetable
FTF Farmer to Farmer

FY Fiscal Year

GEF Global Environment Fund
GOU Government of Uzbekistan
GDP Gross Domestic Product
HDI Human Development Index
HIPC High Income for Poor Countries

IBRD International Bank for Reconstruction and Development

ICWC Interstate Commission for Water Coordination

IDA International Development Association
IFC International Finance Corporation
IMF International Monetary Fund

MT Metric Tons

MFI Microfinance Institution

NGO Nongovernmental organization

NRMP Natural Resource Management Project

NBU National Bank of Uzbekistan PCI Peace Community Initiative PIU Project Implementation Unit RES Rural Enterprise Support

SAEF Small Assistance Enterprise Fund SDC Swiss Development Corporation SME Small and Medium scale Enterprises

SOE State-owned enterprise

TACIS Technical Assistance Commonwealth of Independent States

UNDP United Nations Development Program

USAID United States Agency for International Development

USDA United States Department of Agriculture

VAT Value Added Tax WB World Bank

WUA Water Users Association

Overview

USAID/CAR provides assistance to the agricultural sector in the Central Asian Republics primarily in the areas of water management and agribusiness development. Management of this assistance is the responsibility of the office of Energy and Water (EW) for water, and the office of Enterprise and Finance (EF) for agri-business. USAID/CAR commissioned this assessment of agricultural activities, including water resources, in order to expand and/or strengthen the Mission's assistance to the sector in selected areas.

A1. Task Order Objectives

The overall objective of this task order is to help the Mission determine the nature and scope of additional needed agricultural sector activities. The consultants were asked to look at many aspects of the sector, including production, policies, institutions, and agribusiness development and to identify salient trends that will effect future developments.

The goal of the activity is to determine the critical issues for an effective agricultural assistance program that builds on the strengths of existing programs and falls within the Mission's strategic plan.

The specific tasks of the scope of work include:

- An overall assessment of the agricultural sector in four CAR countries
- An examination of the programs of: (a) other donors, (b) USAID related activities, and (c) International Finance Institutions (IFIs)
- Recommendations for new assistance activities that address critical issues to better enable the offices of EW and EF to reach their Strategic Objectives.

Added to the scope of work during the mission:

- The assessment team should provide, in as much detail as possible, recommendations that
 the team believes necessary to advance agricultural development relative to, but not
 necessarily limited to, agricultural policy reform, land reform, agricultural market reform,
 agricultural credit, agricultural inputs, increased local organizational development and
 autonomy within the agricultural sector, water user associations and farm level water
 management.
- These detailed recommendations do not necessarily have to be within the context of the current USAID program; rather, they should reflect what the assessment team believes necessary to promote a more efficient and effective agricultural development program.

A2. Perspectives and Methodology

The consultants' approach to assessing agriculture and water has been driven by the need to focus on development of the private sector and management of water resources. The nature of private sector development is a strong indicator of the trends in agriculture and water and the constraints limiting growth in agriculture and responsible water resource management. We have made no assessment of the country's macroeconomic conditions, inflation or currency stability; we only report on other assessments to provide context.

This assessment is not meant to be comprehensive. Some agriculture and water sub-sectors are not mentioned, as they may not have a major impact on current growth trends. Our focus and perspective draws heavily on past experiences in transitional economies in recognition of the stages or phases that transitional economies normally experience.

The consultants spent very little time in each country for this assessment. Obtaining concrete, factual information and data when the economy or government is in flux is difficult. Accordingly, the nature of the assignment and the time permitted required the consultants to develop a composite assessment based on documents, interviews, and professional judgments made in synthesizing complex and sometimes conflicting information and data. This report reflects the consultants' best collective professional judgment in providing USAID as clear and current a picture as possible on agriculture and water in Kazakhstan, Kyrgyzstan, Uzbekistan, and Tajikistan.

A3. Documents Used in This Report:

- 1. TACIS, 1997, 98, and 99, Food and Agricultural Policy Unit, agricultural policy review series
- 2. World Bank, 1999, Uzbekistan Agriculture Enterprise Restructuring and Development Program
- 3. World Bank, 2001, Agriculture in Uzbekistan: Private, Dehqan, and Shirkat Farms in the Pilot Districts of the Rural Enterprise Support project
- 4. World Bank, 2001, Uzbekistan Country Economic Memorandum, Volume 1.
- 5. World Bank, 2001, Uzbekistan Country Economic Memorandum, Agriculture and the Rural Sector

SECTION B

Task Order Components

B1. Examination of the Agricultural Sector in Uzbekistan

Uzbekistan is ranked 99th out of 162 countries by the 2001 Human Development Index (HDI). The HDI measures a country's achievements in terms of life expectancy, education, and adjusted real income

B1a. Agricultural sector overview

Uzbekistan agriculture depends on irrigated production of four million hectares of cotton, grain, or fodder. The area devoted to cotton has declined by more than 10 percent since 1991, while the set aside for wheat has risen dramatically in response to government food security policies and largely at the expense of fodder crops, which have declined to 40 percent of their 1991 planted area.

Uzbekistan has focused on producing cotton and exporting it to Russia for more than 50 years. Cotton created a network of other industrial branches, including irrigation networks, machine-building plants, chemical facilities, hydroelectricity, cotton-processing, and some textiles. Soviet investment in the past focused almost exclusively on cotton production, and the bulk of the value added to the cotton was made outside the cotton producing area, especially in Russia.

Cotton yields have fallen during the past decade as a result of insufficient supply of inputs, land salinization, depleted soils, and highly imperfect production incentives. Yields dropped from an already low average of 2.58 tons per hectare for 1991-1995 to 2.24 tons per hectare in 1996-2000. Wheat yields have doubled since 1991 to 2.5 tons per hectare, which is nevertheless extremely low by international standards and hardly justifiable for high-cost irrigation.

Livestock production has remained stable, largely due to household agricultural production, which accounts for the major share of livestock production. Only the number of poultry and pigs has declined significantly. Due to falling levels of fodder cropping, domestic production of feed is less than one-third of the 1991 level.

Uzbekistan has the necessary irrigated land and a favorable climate for the production of fruits and vegetables. The country has an important processing industry consisting of wineries (wines, vodka, and brandy), canneries (tomato paste, fruit products, and marinades) and drying plants (dried fruits and raisins). Total production exceeds domestic demand.

There are two main arguments regarding the inefficiency of the state and collective farms. The first is concerned with the ownership of the land. The second involves the command-administrative system of state policy. Within the Soviet system, land and machinery were owned either by the state, or they were the property of the collective farm. Consequently, the individual farmer did not have any incentive for the efficient use of resources. Farmers' labor contributed to the collective output and was independent from their benefits. In addition, the command-

administrative system led to an inefficient management of resources. The implementation of production targets without consideration of real costs of inputs and the value of production outputs caused the waste of inputs such as energy and led to low-quality output products. Wasteful use of resources increased further through inefficiencies in supply and storage capacities.

B1b. Government policies and programs

Uzbekistan's agriculture potential has not been realized because of the constraining influence of the Government of Uzbekistan's (GOU) policy framework. Specifically, the GOU constrains development through the state order system for cotton and grain, prescribed cropping patterns, and administrative control down through the provinces and districts to individual farming units. The state also determines the prices to be paid for these crops, which are below international market rates. A recent World Bank report notes that these practices, in conjunction with the use of the overvalued official exchange rate to convert the export price of cotton into local currency, impose a huge implicit tax on the subsector and result in a large net transfer of resources from agriculture to the rest of the economy.

Meaningful reform may be on its way. The March 2003 presidential decree (see Annex C) aims to "deepen economic reforms in agriculture, enhance production affairs in rural areas, implement proper market-based management structures in agriculture, broaden the independence and secure the legal protection of agricultural producers." The decree sets out a mandate to focus on boosting lease ownership and contract-based management systems, creating farmer-focused economic and legal conditions, and encouraging farmer units as the main driving force in agricultural production. Beginning in 2004, all *shirkat* and farmer units will be transferred to a "leased-based utilization of croplands." The decree sets the order upon which the procurement targets for grain and raw cotton are to be based and sets target production proposals for the Council of Ministers and regional administrations, which are derived from contractual agreements between agricultural producers and procurement organizations.

The decree also states that agricultural producers will independently define the crop structure on the basis of concluded contracts, and autonomously handle their productions, property, financial, and material resources. The Cabinet of Ministers is assigned to determine and authorize in two months time the concept of developing the modern farming infrastructure in 2003-2005. The expectation is that the management agricultural production is to be fundamentally reconsidered, including abolishment of distribution functions of the Ministry of Agriculture and Water Management and rebuttal of command administrative regulations and management in agriculture. Also, councils for development of cotton and grain farming, cattle-breeding, fruit and vegetable-growing, irrigation, raising cropland fertility, rational use of soil and water resources, mechanization, and use of chemicals in agriculture are to be created at the Ministry of Agriculture and Water Management.

This decree seems to accelerate existing programs of institutional change in the agricultural sector, which have focused on reorganizing the former *sovkhozes* and *kolkhozes* into new forms of collective farms (*shirkats*), with subdivisions farmed by extended families. These programs have also permitted the development of private farms (averaging 20 hectares in 2000) and, by

expanding the former household plots of farm workers, created a class of small peasant (*dekhan*) farms (averaging 0.13 hectares in 2000).

Economic and Agricultural Policy

General policies

Uzbekistan is an authoritarian state where the government controls political activity and, to a large degree, the economy. Private economic activity is allowed to operate under the control and approval of the government, which maintains the ability to curtail or stop economic activity as it deems appropriate. The main GOU economic strategy is strong centralized management control of the economy to allocate resources based on detailed planning of production, trade, and investment in agriculture, energy and industry. Key to this strategy is taxing agriculture to finance development of the industrial and energy sectors. GOU economic and agricultural policies are thus heavily intertwined in the control and management of the revenue and cash flows of cotton and wheat production—primarily cotton. Uzbekistan cotton production represents approximately 50 percent of the country's annual foreign exchange. Controlling the production and sale of cotton enables the government to control and direct most of the country's foreign exchange revenues and enables the government to control the entire economy and to direct how the foreign exchange is spent. The key to the government's approach is to command and encourage farmers to grow cotton within an economic framework that enables the government to tax it for the benefit of the import substitution industry and energy sectors that the government is trying to develop. 1 Most agricultural policies flow from this.

Private SMEs and private farms are encouraged with official lip service and numerous reform measures—a unified tax system for SMEs, streamlined business registration, reduced business inspections, subsidized credit, and an end to the government requirements that SME surrender foreign exchange generated by their exports. Implementation of these measures by a rent-seeking national and local government bureaucracy limits their impact. Many report that the SME measures are merely government attempts to reduce the shadow economy comprised mostly of sole proprietors.² None of these measures grant access to scarce resources for production. The monopolization of financing and raw materials for state controlled or favored enterprises driving the government's industrial policy makes resources for SMEs unavailable or expensive. SME measures are important to farmers, which are generally all SMEs, and the primary purchasers of their household plot produce not sold directly in the bazaar are SMEs. The failure of the government to subject its fostered import substitution industries to competition—even from its own SMEs—almost assures long-term failure due to poor optimal use of resources. Neighboring economies, such as China, have also fostered an import substitution industrial policy combined

¹ Reports are widespread of the high level of corruption of government officials self dealing in government assets and taking payments to permit economic activity or avoid government regulations, restrictions or requirements. These inappropriate government actions primarily affect policy reform in retarding implementation of any reform curtailing officials' abilities to extract money from individuals and businesses. Regardless of the degree of government corruption, the government is funneling the taxes of agriculture into the development of the energy and industry sectors.

² The GOU's aggressive attempts to control the shadow economy started in the summer of 2002 with the 90 percent cross border shuttle tax, the temporary closures of bazaars and *zums*, and border closings. The results drove many entrepreneurs from business, created a severe scarcity of consumer goods, especially in Tashkent, in the fall of 2002, and increased the gap between the official exchange rate and the black market rate.

with an aggressive export policy and a gradual but steady opening of these fostered industries to competition. The result has been steady high economic growth, gradually improved cost control of production, increasingly more effective economic investments, and gradual transformation of state enterprises into economic units or liquidation.

The Uzbek highly planned and controlled model has developed a number of processing and manufacturing enterprises operating at low capacity with low export trade. An overvalued exchange rate to facilitate purchase of capital equipment and machinery lasted too long. Not only did the Uzbek government fail to readjust its exchange rate after the Russian ruble crisis of August 1998, it also tightened foreign exchange controls, making export promotion even more difficult and leading to further export contraction. The high foreign exchange controls also drove much of the economy underground, dramatically increased non-taxable internal and cross border barter transactions, encouraged capital flight, and discouraged foreign investment. The dramatic turnaround did not relieve the problem but created others. Since early 2000, the Uzbek currency has been devalued by more than 500 percent and many foreign exchange controls removed. These policy changes were too little and too late to correct Uzbekistan's weakening economy. All of Uzbekistan's regional trading partners had become well adjusted to a more difficult operating environment requiring higher quality, lower prices, and lower cost production to remain profitable. In addition, the Chinese export engine had gained considerable ground penetrating more and more markets with lower cost goods, many of which the Uzbek government had been fostering production in its import substitution industrial development. Nevertheless, it was an important first step along with restricting future foreign debt. But the underlying failed industrial and energy policies that created the structural misalignment have not been altered. The results of a decade of Uzbekistan macroeconomic policies has been very limited industrial and energy growth at high external debt cost still needing servicing and a depleted and decapitalized agricultural sector that cannot continue to fuel and fund the industrial policy without substantial restructuring and capital investment. Failure must be declared with the government moving on to more sensible market reform measures that result in increased efficiency of input use at all levels of the economy.

Compounding the damage to the government's misguided macroeconomic policies is the spiraling debt for financing the industrial policy. Repayment of external foreign debt became increasingly more expensive with each devaluation. The World Bank estimates that Uzbekistan must achieve a GDP growth rate of almost six percent to maintain adequate debt service over the long-term. Otherwise, the cost of past debt compounds rapidly into a debt spiral that becomes impossible for the country to service over the long-term. To its credit, the government has severely curtailed external borrowing and government guarantees of foreign borrowing, which has essentially halted foreign loans. Uzbekistan needs to pursue export growth to help itself out of the debt burden. To its credit, the GOU has severely restricted external borrowing for the last two years. The strongest near term export growth for Uzbekistan is in the agricultural sector, as agriculture responds quickly to improved incentives and liberalized policies. This will likely lead to immediate crop diversification, livestock sector expansion, greater productivity, a general reduction in rural poverty, and a lessening of tensions throughout the country. The agriculture tax policy of the last decade has already pushed the productive economic unit into the household plots managed by families. Unleashing this productive economic engine further should have

significant results. Removal of the excessive controls and taxes of the sector to promote the industrial and energy sectors will have to take place.

Price regulation and controls remain throughout the Uzbek economy despite some liberalization measures undertaken after independence in the early 1990s. Socially sensitive goods—flour, bread, sugar, butter, and cooking oil—utilities, and strategic goods (metals, cotton, and cement) have direct price controls, while cereals and livestock products are low due to export bans. Price regulations are reported to cover more than 270 goods. Less than one-third of Uzbekistan's large industrial enterprises have any import competition and largely operate as monopolies. The GOU controls much of the elements of agricultural production—access to land, inputs, financing, and markets. Liberating access to one without the others does not allow producers a plausible alternative.

GOU Agricultural Sector Management

A centerpiece of state control of cotton and wheat production is control of inputs and markets. Cotton revenues to the state are controlled through state procurement system and VAT. Wheat is controlled through the export ban. Seed is provided to the farmers in exchange for a portion of their crop at harvest at state determined prices—well below world market prices. Fertilizers and agricultural chemicals are provided from state companies, again in exchange for cotton at harvest to the government at low prices. Most of these directives and controls are issued through the Association of Private and *Dekhan* Farmers, a voluntary association organized and sponsored by local government officials. Farmers can choose not to belong, but they then limit their access to inputs to more expensive prices from bazaars, shirkat farm managers, or other non-official government distribution outlets. If farmers meet the state order for each raion, they can grow whatever they want on any remaining land. Generally, this means they can grow fruits, vegetables and wheat on small household plots and small pieces of land not needed to meet the state order. Shirkat directors give farmers access to shirkat land for a second crop after the cotton order has been fulfilled. They often ignore farmers who graze their animals near cotton land or in the fields after cotton or wheat have been harvested. This additional amount gives farm family a subsistence living plus a little money from excess crops that they sell in the marketplace.

Government management of cotton and wheat production has been poor and debilitating for the entire sector. The government has been taking resources and net profits from cotton and wheat without reinvesting in the sector. In fact, as the world cotton prices have declined in recent years both in lower prices from China's entry into the market and lower Uzbek yields, the net Uzbek cotton revenues have also declined. Undaunted, the government has sought to maintain its revenues by squeezing the farmers to accept lower prices and giving them fewer inputs for production. Little money has gone into investment in the agricultural sector.

Farm machinery is primarily old Soviet equipment that has been in service for 14 to 16 years, though the government has been distributing some Uzbek manufactured machinery (Uzbek Case production) financing by government owned UzCase Agroleasing and Uzbek Leasing. Much of the old equipment is no longer operational, and the remainder is not efficient, consuming excessive fuel, leaking oil in the fields, and leaving 20 percent in the fields at harvest. Access to and use of seeds, fertilizers, and chemicals has also been inadequate. Seed varieties are not the

best for the microclimatic conditions. State enterprises do not always have sufficient supplies of fertilizers and chemicals appropriate for the local soils, pests, and diseases. What fertilizer has been available has been heavily used in an attempt by farmers to achieve their cotton quotas on smaller acreage to have other land for wheat and their own use. The lack of rotation has exhausted soils, depleting them of important minerals and nutrients. Most important, the irrigation system has deteriorated and needs substantial rehabilitation to support agriculture. The results are predictable. Yields have declined, soils have been depleted with salinity increased, runoff water has a higher mineral content, and farmers have declining returns. In effect, the government has been taxing agriculture for its public and private uses without reinvesting to ensure sustainable production. At some point, this system will collapse.

Government policies since independence have focused on preserving their monopoly and monopsony on cotton and having reasonable though lesser control on wheat to maintain some greater control on the country export earnings and import purchases. Control of wheat production is secondary to cotton but also important. Achieving domestic wheat independence, the government has reduced the country's demands on foreign exchange for importing wheat as well as given farmers a crop that can ensure their families' food security. Saved foreign exchange can be used to support the government industrial policy. State wheat orders enable the government to ensure the population has bread at relatively low prices. Efficient farmers can produce more than the required state order to use for themselves or store it for selling or trading at a later date. Selfsufficiency in wheat was achieved relatively quickly and Uzbekistan regularly achieves annual production of more than 5 million metric tons of wheat. With wheat exports officially banned, the government is able to make flour and bread available at low prices throughout the country. Nevertheless, Uzbekistan loses economic value from converting some former cotton acreage into wheat. The World Bank estimates that Uzbekistan loses on average about \$60 million annually (\$2 billion over 10 years) from this practice, as the value of cotton yield per land unit is higher than the value of the wheat yield for the same land amount.

Domestic political pressure and donor and international financial institutional conditionalities for land reform and ending of the state order has produced numerous Presidential decrees, Cabinet of Minister resolutions, and Parliamentary legislation promoting changes in form but not in substance. The government has many stated broad policy goals such as 1) improvement of food security; 2) promotion of rural employment, improvement of living standards, and social stability; and 3) generation of foreign exchange earnings, to name a few. But actual reform reflecting concerns for the first two goals are slow and limited.

The World Bank and Asian Development Bank (ADB) have established programs to work in various *raions* with conditions that farmers be released from state orders, given lower state orders, or given more flexibility in state order pricing to give them higher incomes. Various formulas are established to give the farmers more operational and financial freedom. Their ultimate effect is likely to be modest given that the government, for cotton at least, is the only ultimate buyer and controls all exports. In some of the targeted *raions*, however, the government has freed the *raion* from state orders partially or entirely. Most of these raions are in areas of very poor soils and low agricultural production of any kind. In others, the raions did not previously have state orders for cotton or wheat anyway. These modest pilots do not change or affect the basic government policy for controlling the cotton industry, but do help solve

government social and economic problems in some districts at little near term cost to the government. The actual project experience will prove whether the government is allowing real reform even in pilot areas.

Government arguments against land and agricultural reform are many. The government wants to avoid the economic and political instability that has accompanied the rapid privatization and transition to a market economy of other former Soviet republics and Eastern European countries. The government has resisted private ownership of land, as opposed to the lease rights, for a variety of reasons: 1) it would result in disorganization of cotton and wheat production necessary for Uzbek export revenues and food security; 2) it would result in too small land parcels for economic production or effective water use from an irrigation system designed for large collective farms; 3) it would result in social disorder and civil conflict over land rights; 4) farmers do not have the technical knowledge and skill to manage a farm outside of the *shirkat* system; and 5) it is contrary to Uzbek tradition, in which private land ownership is unknown.

Despite this dismal picture of Uzbekistan agricultural and market reform, there are signs that the government may be interested in reform for a number of reasons. First, the government financial position has been declining and foreign debt increasing, and economic growth is needed. Border closings and arrests of illegal bazaar moneychangers are having a small effect on restricting the outflows of foreign exchange and imports in the shadow economy. These measures also cause problems with Uzbek's neighboring countries. Second, the government understands the strong dissatisfaction of farmers in fulfilling state orders in preference to growing what they want for sale in the markets. They want to improve their families' standard of living themselves and not rely on government promises. As the farmers have gotten poorer, tensions have been rising against the government shirkat and state order system. The government needs to mollify them to encourage greater cotton production and yield. Third, the government understands that cotton production will continue to decline unless land remediation, irrigation rehabilitation, and inputs improvement measures are taken. Without foreign assistance and funding, the government is unlikely to solve this problem and maintain its control of cotton and wheat production. In addition, the government is not monolithic in its focus on maintaining control of cotton and wheat as the primary unstated government policy goals. Many are interested in seeing improvements in the Uzbek economy and the welfare of the Uzbek population.

A series of measures since 2001 in agriculture, water, and finance, indicate opening in government policy where reform may be possible. In 2001, the Cabinet of Ministers approved the ADB Ak Altin Development project for irrigation rehabilitation and on farm support. Most important, after six years of hard negotiation, the Uzbek government and the World Bank entered into an agreement for the Rural Enterprise Support Project. Yet nothing will happen quickly. The Cabinet approved the World Bank project in December 2001, but the project was not executed and implementation begun until September 2002, and loan disbursement still has not occurred. Thereafter, modest measures were adopted that gave farmers some flexibility in wheat and cotton. In January 2003, President Karimov issued a decree on gradual privatization of state ownership of enterprises to accelerate development of the private sector. In February, a resolution making further modest changes in marketing cotton along market principles and improvements in cotton production was announced.

The most important Presidential Decree was issued in March 2003 calling for the deepening of reform in the agricultural sector. This decree includes, among other things, the following provisions:

- A leasehold is a main form of land tenure for farmers.
- Private farming is the principal and defining form of farming in agriculture in the near future.
- Government will gradually restructure loss-making cooperative farms into private ones while maintaining good performing cooperative farms.
- Protect the rights of farmers in contract execution.
- Define projections for raw cotton and wheat production and procurement at the national level and by provinces based on the volumes of contracts signed between agricultural producers and procurement organizations.
- Give farmers independent decision-making on cropping pattern.
- Prepare a concept paper for private farms development and a program for comprehensive development of market infrastructure in the rural areas for 2003-2005.
- Revise the functions of the Ministry of Agriculture and Water Resources (MAWR) based on new market requirements and abolishment of its distributional and control functions.
- Move from administrative-territorial to basin based water resource management.

At first blush, the government has announced its intention to make numerous and far-reaching reforms that will dramatically change Uzbek agriculture. In some cases, it reiterates resolutions that the Cabinet of Ministers has previously passed—conversion of failing cooperatives into private farms and application of market principles to the cotton industry. A more careful perusal of the language suggests that the government intends to make some reforms that will continue to strengthen agriculture, revitalized the decapitalized sector and encourage farmer production but not yet relax its control over cotton and wheat production. Land reform is relegated to leases, albeit for 50 years and devisable through inheritance. Only shirkats with great losses will become private firms with the land being distributed through a yet to be determined government procedure. Farmers will have to apply and compete in some fashion to receive this land. Labor relations laws and regulations will apply to farmers and farm workers. While the decree appears to abolish the state order system for cotton and wheat, this is only a reordering of MAWR responsibilities and not all government responsibilities over the state order system. Defining the production and sale of cotton by contract only changes the form of state purchase. Farmers can still be forced to sell their cotton and grain to the government marketing boards. What the decree really means is difficult to determine because the language, while covering specific areas of reform, is very vague on the details of what and how it is to be implemented.

In short, the decree is similar to government pronouncements over the past 10 years to reform the old Soviet system for cotton and grain moving toward a market economy gradually. In practice, administrative, organizational, and distribution matters changed but control over the production and sale of cotton did not. This decree may be different, but not likely to succeed.³ Control over cotton and a large portion of the nation's resources gives the government strength to maintain its authoritarian regime and its industrial and energy policy. The government is not likely to give that up easily or quickly, as it may bring the end of some elements of the current regime.

Nevertheless, the government is trying to reform the current system in a manner that encourages and facilitates investments in the agricultural sector to improve production. Government management of the sector in the post-Soviet period has primarily focused on controlling the cotton and grain production and benignly neglecting the infrastructure and condition of soils and water. Government officials are being directed to solve these problems but they do not have full capacity, technology, or resources to do so. One may state that this announced reform effort is the government's attempt to rejuvenate better quality agricultural productive capacity to enable the government once again to enjoy high cotton yields. So much the better if the donor community pays for this agricultural rejuvenation. On the other hand, the GOU is trying to make a strong effort to gain accession to the WTO before or at least at the same time as Russia. The GOU may believe that changes in the laws and regulations to gain accession need not alter government practices. Some officials, just as Mr. Jurabaev, the new Minister of Agriculture, appear to be genuinely seeking assistance in developing policies that improve the sector. In the end, the government may not have the institutional capacity to appreciate that its policies of the past decade has put the economy in its weak and declining position. Targeted technical assistance can demonstrate to many officials some things that do work, generating increasing internal government support for policy change. External pressures on the government to make changes are strong, and a sense is developing that government officials want to do something to work its way out of the weakening position but do not know what.

Regardless of GOU true intentions, the government decrees and resolutions announcing reforms present opportunities for carefully targeted interventions designed to help the government live up to the spirit and letter of its decree. More important, through properly executed programs, donors may help the government develop policy approaches that implement the decree in a manner that promotes the development of an open market. A broader based private enterprise system is needed to increase leverage against the government to enable even greater reform. Private enterprise activity is strongest in the fruit and vegetable and livestock subsectors, which should be the primary areas of focus for technical assistance. Fruits and vegetables hold stronger promise as USAID already has substantial resources working with various aspects of the fruit and vegetable industry. Assisting the government to give full leasehold rights to land, enabling the lease to be mortgaged, for example, can provide valuable collateral for lenders. Helping the government fully privatize the remaining state ownership in the food-processing sector could develop a strong industry with good export producing potential. Not only would a more robust food processing sector generate more rural employment from production through processing, but

³ Some have even cynically said that the series of government decrees and resolutions for the past few months were building up to the recent EBRD annual meeting held in Tashkent to present a favorable impression to the bank and its membership. While that may reflect timing, these resolutions were more likely to persuade the donor community to help the government improve the agricultural sector so that it may continue its control over cotton.

it would also generate private funds to import needed production and processing equipment and machinery.

Even now processed fruits and vegetables sold in Russia often return, not as cash, but as poultry; auto, truck, and tractor parts; hardware and hand tools; and a variety of other products. Incoming bartered products in these types of situations are generally at lower value than the exported products — though invoices typically match the items on an even basis. The remaining funds end up as repatriated profits that may be used to finance more Uzbek operations from outside the country. Barter transactions are generally limited to goods that can easily be traded or reduced to cash to purchase other items, and therefore are not a solution to generating exports for all products. Services of all types are becoming major employers that help people subsist in the tough Uzbek economy. People frequently provide fruit and vegetable canning, textile weaving and tailoring, and consumer product sales by working from house to house where these services are needed informally and away from the government's watchful eyes. Helping the government to understand that the country is losing tax revenues and trade from excessive barter transactions and the underground service economy may open up new support for reform opportunities.

Working in a *raion* of loss-making enterprises where the government has abandoned all state orders or other production controls also offers an opportunity to demonstrate to producers as well as government officials what can be done when the proper inputs, technology, know how, operational and marketing systems are brought together in a free market fashion. Uzbekistan's most likely path to higher economic development is through intensive development of the agricultural sector including higher value agroindustrial and food processing products. The fact that the GOU has a poor history of living up to the letter or spirit of issued decrees presents opportunities to require the government to show demonstrated intent to reform by taking some real actions to implement their decrees.

Many interviewees remarked that a Soviet economic mindset might often be the basis for some of the government's ill-fated policies and administrative actions. For example, in July 2002 when the government placed a 90 percent shuttle tariff on goods going through its neighboring borders, the government gave as a basis for the policy that it could ill afford to pay for all of the goods that Uzbeks were trying to import. Multiple exchange rates, border closings, bazaar closings, and import restrictions all reflect a budgetary, static approach to the economy rather than the real dynamic market place. An integrated commercial agribusiness project could demonstrate the growth dynamics and multiplier effect of the economic rather than the zero sum game theory of Soviet economies.

In many respects, Uzbekistan's neighboring China provides a guidebook to reform from the command to market economy. Introducing incentives and decentralization gradually at all levels of the Uzbek economy will have the desired effect of slowly increasing domestic consumption. Allow production firms to make their own production and marketing decisions. Allow trade corporations to choose products for export that the market wants. Allow farmers to make

⁴ Many government policies encourage a gray or shadow economy not measurable by the government. Taxation is a primary one. A US government consultant and an IRS tax expert independently concluded that the effective tax rate on business taking all national and local taxes into account is between 60 to 70 percent of revenues. No business can survive and honestly pay all taxes for assessments. The net result is that all businesses are operating illegally and the government can harass or shut any business down at any time merely by shining a light on their failure to pay all applicable taxes.

planting decisions based on the market. Gradually over time rationalize the enormous irrigation subsidy to agriculture by achieving cost recovery of operations and maintenance of the secondary and tertiary canal systems. USAID projects now have the resources to provide technical assistance toward these directions. Concentrating this assistance in an integrated fashion to the fruit and vegetable industry that is freer from government controls than other crops, a more profound demonstration can be made of the power of markets when an entire value chain has the inputs, the capacity, the financing, and the marketing information to respond.

Associations

The government provides directives for industry and agriculture through industry and trade associations that coordinate and facilitate enterprise and farm activities. Membership is voluntary in principle but access to scarce resources depends on associations, which are typically a monopoly for centralized marketing of enterprise output. Small farmers and SMEs may be members of industry and farmer associations but also operate outside of government monitoring and function in the cash economy outside government control.

The companies law does provide for organization and registration of private associations as joint stock companies or as nongovernmental organization. Association incorporators must carefully determine what functions they expect the association to fulfill before determining which organizational form to use. Non-profit associations and NGOs are non-taxable but their activities are restricted. Nor is it clear whether an NGO can convert to a profit-oriented joint stock company if the membership later decides that it wants to expand into commercial activities on behalf of members.

PA Consulting is advising the Water User Associations (WUAs) to develop as NGOs to attain the tax-exempt status of such organizations. In their view, commercial activities for WUAs are a distant possibility and they do not need to be harassed by tax authorities when they are not generating any income.

Banking, Microfinance Institutions, and Credit Unions

Banks

The Uzbekistan banking community consists of 15 partially or wholly owned government commercial banks, 14 relatively small private banks, four joint venture banks, and two banks that are wholly owned subsidiaries of foreign banks. The GOU dominates commercial banking. The National Bank for Foreign Economic Relations of the Republic of Uzbekistan (NBU), a wholly owned government bank, operates as a commercial bank and is one of the largest banks in the region. The NBU operates as the government's fiscal agent in international markets and conducts savings, project finance, investment, export-import and commercial banking function for the government. The next seven largest banks—Pakhta Bank, Uzpromstroibank, Asaka Bank, Uzjilsberbank, Khalk Bank and Galla Bank—are partially government owned. Together these eight banks own 90 percent of the banking assets in Uzbekistan.

A variety of country sponsored export-import banking facilities operate in Uzbekistan to finance exports of equipment or machinery produced in the sponsor country. These export-import facilities include:

- Bank National de Lavoro—supported by Sache, Italian export credit facility
- Obhodny Bank—supported by Egap, Czech export credit facility
- Banks of France—French bank financing supported by Kofas, French export credit facility
- Banks of Israel—Israeli bank financing supported by Iftirik, Israeli export credit facility
- Banks of Germany—German bank financing supported by Hermes, German export credit facility
- Bank of New York—US bank financing supported by US ExIm Bank

As most of these facilities require sovereign guarantees and are serviced through the NBU, the GOU assuredly directs what is being purchased and where it will go. The high degree of control of the GOU over the financing of imported equipment and machinery whether through commercial banks or leasing companies gives the government a high degree of control over who receives agricultural equipment and machinery and the purposes of its use. The GOU has complained about the high cost of machinery imported from these countries and has been working to develop financing to import cheaper machinery from Belarus and Ukraine.

Most of the government banks operate as 1) budgetary allocation facilities for the government directing funds to entities and government programs; and 2) an intermediator of state-guaranteed foreign loans to state-owned or state-sponsored enterprises. The latter group accounts for nearly 70 percent of the loans of the banking system and is concentrated in the NBU and a few medium sized state banks. These potential calls on the state budget have been growing in recent years as the GOU places high bets on a successful import substitution strategy financed by foreign loans. Deleting the budget allocations, treated as loans, to the state enterprises from the banks books would not disrupt the financial integrity of the banking system or wreak havoc to the government budget as these resources have been expended and unlikely to be repaid. The remaining external debt must be repaid or GOU and Uzbekistan access to international debt and equity capital will drop below its already low point. Data on the credit quality of these loans is limited or not available. A better approach would be to restructure state enterprise debt on a case-by-case basis to a point that all external debt is more likely to be serviced rather than become a claim on the NBU and GOU guarantee.

Financing for agricultural inputs is distributed through banks, primarily Pakhta Bank, from the Fund for State Agricultural Purchases under the Ministry of Finance. The GOU established this fund in 1999 to ease pressure on farm barter of agricultural crops and to preclude private entry into agricultural inputs supply. Banks intermediate the credits as directed by the government. In this manner, these banks operate as extension of the government and the Central Bank, which has more control over them than their shareholders or managers. Political control is pervasive. The Central Bank of Uzbekistan (CBU) appoints bank chairs, and local bank branch managers must be approved by the local hakim. GOU debt for government functions is carried on the books of the banks as loan assets when the funding is entirely provided from the government budget. By Presidential decree, all government-funded loans to state-owned enterprises are

performing regardless of whether any principal or interest payments have ever been received. In addition, there is a current moratorium on state enterprises paying interest on any bank loan. Therefore, no bank with "nonperforming" loans to state enterprises can ever be considered insolvent. Many banking regulations are state secrets prohibiting disclosure of most banking activities.

The GOU disputes the degree of governmental control, arguing that most of the so-called government banks have many shareholders and the government ownership position is relatively small and a minority position in most cases. These arguments belie the strong government control of these banks and the clear indirect ownership. Pakhta Bank, for example, was the Soviet era Agroprombank. Although it has more than 7,000 shareholders, the majority of these shareholders are state-owned enterprises or other entities under GOU control. In addition, it is the financing facility for the cotton industry.⁵

Purely private commercial banks are small and have limited ability to conduct banking business outside of the interference, direction, or control of the government. Banks must collect taxes on behalf of the government from businesses and individuals, and all deposited funds are subject to disbursements to the tax authorities for taxes. Such tax collection is a purely governmental function that should be carried out by government bodies. In addition, banks are required by CBU policy to restrict cash withdrawals from any account. Furthermore, all account information is forwarded to and recorded by the CBU. Account holders even have difficulty gaining access to their funds as banks are required by CBU policy to restrict cash withdrawals from any account without a justifiable reason and maintain the right to refuse a withdrawal without explanation. A more responsible government cash policy would provide banks with adequate cash to avoid withdrawal problems. A more active interest rate policy could more appropriately address money supply issues. With the current practice, the public views banks negatively as agents of the government and is discouraged from opening accounts or making deposits in the bank, severely restricting the liquidity base in the banking system that the government is trying to develop.

Bank supervisory technical assistance has worked with the Central Bank to develop an appropriate chart of accounts, daily call report, general ledger, and management information standards. Little has been adopted as the CBU has viewed these administrative changes as not necessary. Development of off-site monitoring and examination has been difficult due to the limited ability of CBU operational staff to gain access to bank information without permission of the CBU Chairman. Many of the regulations regarding financial information and its content are secret, limiting the ability of borrowers or investors to understand how the financial system operates. Many donor and IFI seminars and conferences have trained numerous bank officers on the appropriate ways to conduct commercial banking operations, but the results are rarely translated into reformed banking practices. Balance sheet, income statement, cash flow statements and other measuring approaches to bank profitability are ignored in favor of accountability and approval of the flow of funds. Profitability is not an important focus of the

⁵ While bank officials reportedly want to cease being state fiscal agents, these reports do not seem credible due to the fact that the vast majority of resources flowing through the bank are state budgetary funds, primarily financing the cotton industry.

⁶ Historically, this practice was part of the command economy's cash planning system. More recently, it is a matter of economic control of funds flow. The bank's right to demand a reason for any withdrawal has been repealed but most banks continue to routinely question depositor about withdrawals.

larger Uzbek banks though they report capital and profitability to the CBU, maintaining facial compliance with BIS international banking standards established under the Basle Accord.

Banks do not collect data on the creditworthiness of most of the borrowers of their portfolios nor do they believe that they need to as long as the loan has been directed or approved by the appropriate government or CBU official. Most of the loans are funded by government budgetary funds or foreign loans guaranteed by the GOU and therefore not a risk to the bank. The official declaration that state enterprise loans are performing regardless of their activity and the concomitant GOU moratorium on interest payments not only discourages banks from properly assessing the credit quality of their loan portfolio but also generates false profitability. Interest not paid accrues and is reported even though the likelihood of that interest actually being paid decreases daily. Banks do not attempt to protect themselves against inflation, encouraged by the GOU. By Presidential decree, for example, inflation for the country has been set at 10 percent and government statisticians are prohibited from contradicting this fiat. Real inflation estimates range from 24 to 55 percent with many suggesting that it falls toward the high end of the range. Based on these lax banking practices, a thorough examination of the loan portfolios may reveal that many banks are capital impaired or even bankrupt.

Some signs of banking reform do exist. The Banking Association of Uzbekistan has been lobbying the GOU to make banking reforms to allow them to operate more as commercial banks. The banking industry wants to be relieved from nonbanking functions—such as tax collection—and turn these activities over to the government. Not only does the practice provide banks with a negative image, but tax collection takes up an enormous amount of bank staff time without compensation. Banking representatives have proposed that the banks provide staff to train tax government tax inspectors for three to six months, after which time the government will take over tax collection entirely. Another banking issue has been government debt on the books of commercial banks. Several suggestions have been put forward to remove this debt to an office of the Ministry of Finance, sell it in the marketplace, or simply write it off entirely. Because the government funded the debt to state enterprises from budgetary resources, removal of all entries from bank financial statements would merely shrink bank assets. Removal of the debt should be handled in conjunction with restructuring of enterprise debt funded with foreign bank loans mentioned above.

Major restructuring and reform of the banking sector are needed if Uzbekistan is to grow its way out of its external debt overhang. For agriculture, short-term continuation of the State Fund for Agricultural Purchases must continue until farmers develop sufficient capital assets to support commercial financing. Government creation of a mechanism to enable farmers to mortgage their land lease rights will accelerate the gradual phasing out of state financing. Gradual removal of cropping decisions from government financing will also speed up farmer profitability to support non-government (private commercial) financing.

Reform of the state commercial banking system is more crucial and more problematic. The rapid development of credit unions after customers tested the ability to withdraw funds upon demand is instructive:

- Rural residents have substantial cash that has not been deposited or intermediated through the commercial banking unless absolutely necessary.
- Demand for savings and loans is high and people will gravitate quickly to any operational financial institution that is trustworthy.
- The public simply does not trust commercial banks with their cash.

Thus, the Uzbekistan public has little or no trust or confidence in commercial banks as a source of safekeeping money, savings, funds transfer, loans, or other financial services.

- Building community trust should be a bank's number one goal.
 - Past limitations on cash withdrawal, low to negative interest rates, bank collection
 of government taxes, and other financial controls must stop. Otherwise, removal
 of foreign exchange controls will simply result in capital flight.
 - Depositors must have and believe that they have access to any or all of their deposited funds at any time during normal banking hours.
 - Using banks as a tax collector gives banks a bad image and leads to mistrust of customers toward a bank's care of their funds.
 - Banks must pay real positive interest rates on any savings products. In the shortterm this will have inflationary effects, but tighter fiscal and monetary policies will gradually wring out inflation.
- Restructure enterprise debt as rapidly as possible and developing strong private enterprise sector.
 - Old debts are an overhang based on false assumptions and bankrupt command economy policies. The sooner that old debts are worked out, enterprises liquidated, and assets placed into the hands of better managers and entrepreneurs the quicker the economy will demonstrate growth.
 - Old enterprise debt restructuring without liquidation or privatization of the enterprises frequently results in renewed bad debts; in state banks, this condition requires constant recapitalization to cover loan losses.
 - o GOU must severely restrict budgetary demands of state enterprises and subject them to cost cutting measures and greater efficiency.
 - Greater business throughput of commercial banks is generated through healthy enterprises—fee income, funds transfers, loans, letters of credit, business relationship development, business introductions, export and import connection development, documentary credits, and on and on.

- Governments must end business direction of banks, especially private commercial banks.
- Government direction of state banks should be dramatically reduced to end increased losses on state enterprise loans.
- Privatization of banks must move forward in an open and transparent manner by selling banks to responsible financial institutional managers and investors.
- Partially privatizing NBU while retaining current management is unlikely to generate the
 interest of quality investors or generate any positive revenue or profitability changes or
 reduction in government direction. The NBU will continue to be a significant credit risk,
 have liquidity risk, and be a systemic risk to the remaining Uzbek banking system. A
 better approach is to transfer the large foreign bank debt guaranteed by the government to
 the Ministry of Finance Restructuring Agency and privatize a majority of the remainder
 of the bank to strategic investors, demonstrating the management, capital, and dedication
 in developing strong banking business in Uzbekistan.

The substantial reform needed for the banking industry suggests that it will be some time before commercial banks are good sources of loans and financial products for agricultural producers. Even indirect producer loans that are often provided by commercial banks through inputs suppliers or processors are not likely for some time. The early indicators of commercial lending of state-owned Uzbek banks to agricultural producers would occur under the World Bank Rural Enterprise Support Project. If the loans terms remain as reported, however, the prospects for a healthy loan portfolio are not high. Strong training programs for agricultural lending and vertically integrated agroprocessing lending should be offered to commercial banks so that loan officers will have exposure to appropriate loan structures

In the near term, agricultural producers are more likely to receive financing from the current government program—State Fund for Agricultural Purchases—credit unions, MFIs, export financed production, family and friends, and other informal sources. Most of these sources will only provide small loans due to the farmers' limited collateral assets and production history. Even these small loans will enable farmers to substantially increase their household plot or private farm production with good profit margins. These loans will help astute farmers stair step themselves into larger capital assets and be able to support commercial bank financing by the time that commercial banks are actively trying to bank the agricultural production sector. Targeted donor resources can facilitate farmer use of all available financing resources and methods, teach them how to present their farming operations in the best light for a financial institution, actively market to interested financial institutions the most promising farm customers, and provide farmers with valuable farm enterprise management training that educates them on developing appropriate financial records on their operations. Developing a commercially active agricultural financing market served by interested commercial banks requires informational and infrastructural development at all levels of the value chain producers, input suppliers, processors, traders and wholesalers, retailers, and bankers. Expecting commercial banks to do all of the work is short sighted and self-defeating.

Credit Unions

The 2002 Law on Credit Unions sets forth a new legal and regulatory framework for credit unions. Based on this new law, five credit unions have been established in Bukhara, Tashkent, Namagano, Gajik, and in December 2002-January 2003 and have mobilized more than \$140,000 in savings and extended around \$100,000 in loans in the first five months of operation. These credit unions clear their deposits and withdrawals through a commercial bank, which is required by Presidential decree to disburse funds to the credit union as it requests.

The strong public response and rapid creation of substantial deposit in all credit unions established indicate a public interest in having basic financial services—savings and loan products—and the lack of confidence in commercial banks as a safe place to deposit funds. These developing institutions remain at risk of the government interference in their development by tax authorities demanding tax payments of all account holders; the government demanding the deposits be maintained in government banks; and the government rescinding the decree that account withdrawals by credit union customers not be challenged. Strong USAID support of the credit unions against inappropriate government control may be necessary.

Microfinance Institutions

By Presidential decree, the GOU has also enabled microfinance institutions to develop and operate under the aegis and support of international donors and local NGOs. Both Mercy Corps and ACDI/VOCA manage microfinance programs in the Fergana Valley.

- Mercy Corps: Provides three- to six-month loans at 4 to 4.5 percent per month to solidarity group women entrepreneurs in Uchqurgon and Kosonsoy in the Namangan *raion*
- ACDI/VOCA: Provides two- to four-month (6 to 12 months for larger loans) loans up to \$500 at 6 percent per month on a declining balance (approximately three to five percent per month effectively) to microentrepreneurs with an emphasis on women. No agriculture loans are permitted.

Land Reform

During the first half of the 1990s, the GOU restructured *sovholzes* and *kolkholzes* into *shirkat* farms or agricultural enterprises and *dekhan* farms or small household plots. The former maintain the large farm status of the former Soviet system and the household plots gave farmers their small own private land for growing whatever they wanted. When productivity on the *dekhan* farms increased more than 35 percent while *shirkat* farms declined or remained flat, the government began in 1999 to establish private farms of 10 to 50 hectares (average size of 20 hectares), reaching 63,000 private farms by 2002.⁷

Reform and restructuring of *sovholzes* and *kolkholzes* into *shirkats* and *dekhan* farms did not substantively change government control of cotton production or revenues. The reforms gave

⁷ Private farms were still subject to government cropping plans and state procurement requirements.

farmers modest flexibility in meeting state cotton and wheat orders, allowing them small land and production opportunities for production that they could freely sell. Some fertilizers and chemicals provided for state use could be siphoned for their household plots, where farmers made 80 percent or more of their returns with fruit and vegetable and livestock production. Access to inputs is one of the primary reasons that farmers continue to work on *shirkat* farms for state orders of cotton and wheat. Another is the fear that the government will take away the private and *dekhan* farms if the government does not get the production of cotton and wheat that it seeks.

Fruit, vegetable, eggs, and small livestock production has largely been an entirely private sector production—potatoes (90 percent), garden vegetables (65 percent), wool (75 percent), meat (55 percent), milk (50 percent), and eggs (60 percent). In fact, more than 65 percent of the output of the entire Uzbekistan agricultural sector was produced on *dehkan* farms and household plots. These modest reforms enable the farmers to subsist a little better and still produce cotton and wheat for state order. Reports are common that farmers lose money on both cotton and wheat production, but manage to eke out a profit from their household plot fruit or vegetable production.

Government policy tolerates the input seepage as it enables the farmers to live better and still fulfill the state cotton orders. This approach also limits the development of a private input supply business. Farmers have very little cash and little if any collateral for credit to purchase inputs from private input firms even if they did exist. Most private and *dekhan* farms and household plots are located in or near the *shirkat* farms and depend upon the *shirkat* irrigation system to receive water for their crops.

With *shirkat* farms continuing to build losses in some of the poorer regions, the GOU has decreed that more than 170 *shirkat* will be privatized with the land distributed to worthy local applicants by a newly formed *shirkat* land committee. The committee will divide the *shirkat* in accordance with the natural agronomic and soil fertility contours and distribute the land within two and a half months. The GOU is open to donor support of the newly privatized farms to facilitate their productive development into profitable farming operations.

Leasing

In Uzbekistan, leasing of movable personal property and non-real estate assets is governed by the Civil Code (adopted in 1996 and amended from time to time) and the Law on Leasing (adopted in 1999, amended on December 13, 2002, and effective February 8, 2003). The series of amendments to the Law on Leasing in December have made leasing more attractive in Uzbekistan generating more leasing activity, though through largely GOU owned or controlled leasing companies. Uzbekistan has also adopted and ratified the Unidroit Convention, governing international leasing, effective February 1, 2001. The Unidroit Convention governs international leasing operations, superseding Uzbekistan laws and regulations, in all cases where the leasing parties are located in separate countries. The major features of domestic Uzbekistan law on leasing include:

- The Law on Leasing defines leasing as a separate renting relationship in which the lessor under the direction of the lessee purchases from a manufacturer or supplier the leased asset (equipment or machinery) and transfers the asset to the lessee for its commercial use for more than 12 months for periodic lease payments in accordance with a written lease agreement.
- Leased asset agreements must also meet at least one of the following classifications:
 - o Lessee must assume ownership of the asset by the expiration of the agreement.
 - o Lease term must exceed 80 percent of the useful life of the equipment or the residual value of the equipment shall be less than 20 percent of its initial value.
 - Lessee has a right to purchase the leased asset at a price lower than market value at the time of purchase; or
 - o Total lease payments shall exceed 90 percent of the value of the initial asset.
- Leasing is not a licensed activity and therefore does not require national or local licenses.
- Leased assets may not include land or any property banned from general public circulation but may include any other non-consumable goods, equipment, buildings, property complexes, enterprises, transportation, and other movable or fixed property.
- Lessors have the right of ownership over the leased assets until all lease payments have been paid and the right to repossess the asset upon payment default in accordance with procedures set by law.
- Accounting for leasing transactions is complicated and governed by the National Accounting Standard No. 6 "Leasing Account," the Law on Leasing, and the Instructions on Using the Chart of Accounts. General accounting for leases requires:
 - o Lessor initially books the asset upon purchase as a fixed asset, writes off the value at the time of the lease, and treats future lease payments as accounts receivable.
 - Lessee to hold the leased asset on its balance sheet at the market value at the time
 of the lease or net present value of the leased payments, whichever is lower, and
 depreciate the asset over the life of the lease.
- Tax of leasing operations is subject to the following taxes:
 - o VAT
 - VAT of 20 percent is levied on fixed assets that are leased.
 - Internally used equipment not subject to VAT.
 - Lease payments are exempt from VAT.
 - Equipment manufactured imported to Uzbekistan is not subject to VAT.

- o Income tax of legal entities
- Excise tax
- o Tax on subsoil use
- o Environmental tax
- Water resources tax
- o Local taxes—property, land, infrastructure development, fuel, trade fee, and legal entity registration fee.

The Uzbekistan Law of Leasing has some limitations:

- Procedures for repossession are cumbersome and expensive. A Presidential decree for improvement of repossession procedures has yet to produce the needed reforms for a speedy, efficient, and low cost mechanism for repossession of leased assets.
- Uzbekistan VAT law discriminates against equipment leasing versus equipment purchase.

There are currently seven Uzbek registered leasing companies—Uzbek Leasing, Baraka Leasing, Avia Leasing, UzCase Agroleasing, Uzsehozmashleasing, Uzbek Leasing International and Foodmach Leasing. Most Uzbek banks and the major leasing companies are government owned, controlled, or directed, bringing the true commercial nature of the leases in question. Uzbek Leasing is 100 percent GOU-owned for leasing Uzbek manufactured equipment with seven year terms at 12 percent imputed *soum* rates. Rates are subsidized by the GOU to get Uzbek manufactured equipment sold. Up to 15 percent of its portfolio can be equipment manufactured in Belarus or Ukraine at a five-year term at 20 percent imputed interest. Its \$150 million portfolio is three years old.

The IFC reports that in 2002 new leases of Uzbek leasing companies grew by 48 percent and new leases of banks grew by 30 percent. Two new banks entering the Uzbek leasing market executed 110 lease transactions in two months for a total of \$323,000. Assessment of these trends requires some caution. Uzbek Leasing, a government owned company, holds more than 80 percent of all leases, primarily financing Uzbek-manufactured equipment. The government provides substantial subsidies to other leasing companies to lease Uzbek manufactured equipment. Much of the activity is informally government directed. Proper leasing applications and due diligence on these 110 lessees could not have been completed in a commercial manner in a closed economy unless government direction or strong suggestion were provided. This leasing spree becomes more implausible upon learning that the most of the leasing is for agricultural equipment. The difficulties of most agricultural producers to generate any profit suggest a lack of commercial scrutiny of the leasing applicants.

The IFC and EBRD have provided a private leasing company, Uzbek Leasing International, with \$4.5 million in new debt financing (for a total of \$6 million) to fund leasing transactions. Uzbek Leasing is owned by IFC, EBRD, NBU and a Malaysian financial institution with a total of \$9 million in leases underwritten to date.

Taxes

Tax policy on agriculture appears supportive to benign, but the GOU taxes agriculture significantly through its tax policy as follows:

- Since 1998, fuel, fertilizers, seed, and CPCs used in agricultural production are exempted from VAT but the effect is felt.
 - The purchase of wheat and cotton by processors at state procurement prices reflect full imposition of VAT.
 - The VAT paid by producers of the inputs is not rebated when they sell the inputs to farmers.
- The VAT on the sale of cotton fiber by ginneries is not credited to the exporting firm when the fiber is exported.
- The combination of VAT not rebated back to producers and the state procurement differential exceeds \$100 million annually.
- The government has additional implicit taxation of cotton and grain by setting procurement prices at 40 to 50 percent below prices of neighboring countries.
- The combination of below market procurement prices and unrebated VAT ranges from \$500 million to \$1 billion annually
- Taxation of agriculture appears to have financed Uzbek industrial development in the oil, gas and power sector; telecommunications and transport sectors; non-ferrous metallurgy, chemical, petrochemical and machine building; and to a limited extent light and food processing industries.

The GOU should end this the non-rebate of VAT on cotton export by not zero-rating the 20 percent VAT on cotton exports.

B1c. Commitment of government to reform

The GOU has issued a number of decrees, resolutions, and laws during the past two years calling for reforms in failing cooperative enterprises, applying more market principles to cotton and wheat, reforming MAWR functions on state orders to be based on market principles, reforming land lease rights, allowing micro-financial institutions and credit unions to flourish, and improvement for equipment leasing. These measures appear designed to improve agricultural sector growth and are too new to judge governmental commitment.

Other activity suggests that the government is indeed entering a period of legal, regulatory and policy reform. A recent flurry of policy reform is taking place in the area of intellectual property, competition law, public procurement, consumer protection, registration of companies, companies

law, taxation, and foreign investment law, to name a few. Some of this activity was started in 1999 following the execution of a Policy Coordinating Agreement with the European Union for TACIS technical assistance in helping the GOU reform its legal regime to be compatible with European laws in standards covering some 117 substantive legal areas. Some of the initial work developed under this TACIS project is now being brought forward and acted upon by the *Oly Majlis* (Parliament), the Cabinet of Ministers, and the relevant Ministries.

One cause of this legislative and policy reform is the government's strong interest in accession to the World Trade Organization (WTO). Though the GOU has applied and submitted its initial Memorandum of Trade Regime to the WTO, the work is just beginning. The WTO has appointed a Working Group and held meetings on the legislative, regulatory and policy reforms that the GOU must make to meet WTO requirements. The TACIS project is assisting the GOU in the WTO accession process and has indicated a strong commitment at the highest levels of the GOU. The GOU is now trying to gain accession before or at the same time as Russia to avoid any difficult bilateral requirements from Russia.

Recently, the GOU altered the legislative process into a bicameral process reflecting IMF/WB conditionalities. Though only one chamber still exists, the legislative process has changed with the *Oly Majlis* now initiating legislation rather than simply responding to GOU proposed bills. This enables more resources to focus on legislative reform and reflects government intentions to undertake and enact the necessary law to fulfill the WTO requirements. Whether the government will undertake non-WTO reforms that may facilitate a more open market for the agricultural sector remains to be seen, but with more resources focused on legislative reform it is more likely that additional measures can be added to a more streamlined and faster legislative track.

The high level of government activity in economic reform, the recent poor performance of the Uzbek economy, the deterioration of trade relations and border issues, and the high external debt suggest that the government is moving toward reform. Governments are rarely monolithic and the Uzbek government is not either despite the very strong vestiges of a Soviet command economy ethic permeating nearly every level of government. Nevertheless, government officials have been told to come up with new approaches to reverse the deteriorating economy. They appear earnest without presenting any ideas. A comprehensive integrated reform strategy that is able to show positive results through one or more product value chains of the economy would present a road map for reforming the current failed economic policies.

B1d. Primary agriculture (production)

Land Reform

Agriculture is only gradually changing from a sector composed from the former large-scale farms to mixture of *shirkats* and individual *dehkan* farms. The formation of *shirkats* has accelerated since 1998, when there were 1,043 *kolkhozes*, 444 *shirkats*, 288 *sovholzes*, and 270 livestock-breeding joint stock companies. Presently there are 1,809 *shirkats*, most of which were created in 2000. Together with other large farm enterprises, *shirkats* occupy some 3.5 millions hectares of land, averaging around 1,600 ha per farm

⁸ Some question the government intent in actually gaining accession to the WTO given that it initiated its application in 1991.

Farm administration within *shirkats* greatly resembles that of the *kolkhoz*, i.e. the farm director remains as powerful as before and departments remain more or less the same. By law, decisions concerning entry and exit of members, appointment of the director, farm production, and division of income are to be made by a general meeting. The rules for *shirkats* are outlined in the 1998 law concerning the Agricultural Cooperative (*Shirkat*). The *shirkats* differ slightly from the *kolkhoz* in that family units (30-90 ha) may enter into a contract with the *shirkat* for production and receive inputs in tranches, which are accounted using a system of checkbooks. After harvest, the accounts with the *shirkat* are settled. The system has been introduced on about 90 percent of land under main crops—cotton and wheat. The families were also given household plots on which they grow produce for their own consumption.

In Khorezm *oblast* and Karakalpakistan, *kolkhozes* and *sovholzes* have been converted into associations of *dekhan* and private farmers. There are tens of thousands of such farms registered, occupying about 0.5 million ha of land, averaging 0.16 ha. The Association of *Dekhan* and Private Farmers is designed to represent the interests of non-*shirkat* farms. Although the associations provide legal, business, and agro-technical advice on a limited scale, they also enhance state control of the private farms by serving as mechanisms to transmit cotton and wheat production plans.⁹

A new land law is under consideration, prompted by the Presidential order of March 24, 2003. The law will focus mainly on three farming types —*dehkan* farms, *shirkats* and individual private farmers, who would have most privileges so that the private sector would develop more strongly (land rights will be for 50 years and could serve as collateral for borrowing). *Shirkats* would have to rent the state land.

Still, state and collective farms and cooperatives account for most cultivated land, despite their relatively small number. A large number of smallholder and *dekhan* farms account for a much smaller proportion of cultivated land. These different types of farms share a large proportion of their labor with each other. About 37 percent of state/collective farm members also cultivate private plots as smallholder farmers. A significant portion of these workers also engage in non-agricultural service work. Many *dekhan* farmers also work on state and collective farms.

State and collective farms organize their members through an internal lease. Uzbekistan law states that the property belongs to members but in practice, farm management controls the land. The terms of these leases do not favor members. Leaseholders give their production to the farm at prices set by the government (district administrations) in consultation with farm management. Lease-holders aim to fulfill state production orders rather than respond to market signals.

State and collective farms focus on cotton and grain, which is totally controlled by the state. In Soviet times, leaseholders were able to market production that exceeded the state quota. However, now the state has monopolized the marketing of products such as cotton and there is only one processor per province.

⁹ Until 2001, associations helped farmers acquire inputs, as designated in cotton and wheat production plans. However, the Government eliminated this function in April 2000.

A household survey report conducted by TACIS in 1999 found that state and collective farm employees comprise the largest labor pool in Uzbekistan, about 25 percent of rural employment. Of these, only 30 percent received income exclusively from the collective farm. Thirty-seven percent of collective farmers receive additional income from private plots as well. The average state/collective farm numbers about 2,500 people, half of which are under the age of 16. Most farmers on collective farms work part-time, earning most of their income from private plots and other activities. Because farm management controls access to land, water, agricultural machinery and social security benefits, many maintain their ties to the collectives to gain access to these resources.

The TACIS survey also found that state/collective farm employees have lower educational levels than other groups. Sixty-eight percent have secondary education but only 16 percent have education specialized in agriculture. Fifty-two percent are men and 48 percent are women. Most employees lack direct experience in organizing and managing a farm, lack entrepreneurial initiative and lack access to start-up capital.

Cooperatives (Shirkats)

In practice, *shirkats* are very similar to state farms and collectives. Some *shirkats* resulted from the forced collectivization in the 1930s and others originated later through "bottom-up" entrepreneurial initiative. They generally have fewer regulations than state farms and collectives and, therefore, they have somewhat more freedom. The political leadership has promoted them as a way of distinguishing its rule from that of the Soviet Union. There are fewer cooperatives and they are somewhat smaller than state and collective farms.

Independent Peasant (Dekhan) Farms

Independent *dekhans* concentrate on producing livestock, cotton, and grain. These are private family-based farms. They have registered with district governments, which recognize them as legal entities, approve the size of their land plots, and permit them to establish their own bank accounts. They can hire non-family members as workers. The lease of their land is permanent and can be inherited by heirs. Despite their apparent legal independence, these farms depend heavily on state/collective farms for irrigation, inputs and sales. The state/collective farms use mandatory cotton and wheat quotas to control them, as well as their own control of irrigation, inputs and customers.

Unlike workers on the state farms and collectives, most of these *dekhan* farmers are experienced in organizing small-scale production and have practical knowledge of a market economy. Although efficiency improved greatly between 1994 and 1995, the number of these farms is declining due to adverse conditions. Many received land in marginal areas located on the periphery of the state or collective farm. Generally, such land may be one-third pasture and half irrigated. These farms lack access to affordable credit, as high interest rates and bribery payments put loans out of reach of most farmers. In addition, land shares were given to all members of the former state and collective farms for free, thus even people without the requisite farming skills also received shares. However, the farms that survived have grown in size from an average of 6.7 hectares in 1991 to nearly 15 hectares.

Leasehold Dekhans

Leasehold *dekhans* are patriarchal based farms averaging about 15 ha. Until a new law was approved in 1998, these farms were not required to register with district governments; now they are required to do so as a means of control. Their lease terms are only for 10 years, a critical impediment to their optimal development. They cannot hire their own labor and do not have their own bank accounts. They depend on state/collective farms for irrigation, inputs and sales channels

Smallholders – household plots

Household farms have permanent leases of land that are inheritable. They comprise about 24 percent of the rural population but only 13 percent of arable land. Their number and total land occupied have been growing rapidly from 2.5 million in 1993 to 2.9 million in 1998. They accounted for 160,000 hectares of cultivated land in 1960, 250,000 hectares in 1988, 491,000 hectares in 1993, 500,000 hectares in 1996 and 650,000 hectares in 1998.

Private household plots are limited by law to 0.25 hectares of land. About half of this land is permanently situated and usually supports a house, while the other half often is temporary, moving from location to location within a state/collective farm. The state/collective farms control about half the land of the many household farms, making the small farmer beholden to the state collective. Most smallholders are part-time private farmers, and they grow a wide variety of crops. Some cultivate for subsistence while others produce cash crops for income.

Smallholders generate income from a wide array of other sources—business, work on collective farms, and transportation or repair services. Thirty-six percent spend less than half a year farming their own plot. The average household farmer spends 7.5 months cultivating. Forty-two percent of them spend fewer than three hours a day on average working their plots. Forty-one percent of them work on collective farms as well. A small number also works in administrative jobs or marketing/sales. About 23 percent receive pension income from the government in the form of pensions, student aid, payments for military service and disability aid.

Overall, these smallholders are more likely to be educated than workers on state and collective farms. However, only seven percent have received specialized training in agriculture. The survey indicated average income was \$120 per year, but this figure is likely under-stated because farmers try to avoid reporting taxable income. Eighty-five percent think income from household farming is quite reliable, higher than any other group.

Private Livestock Farms

These are the most independent farms in Uzbekistan. They do not depend on the state/collective farms for irrigation and other essential inputs. They occupy an average of 65 hectares and possess an average of 400 head of livestock.

District Administrators

District Administrators control the allocation of land and irrigation, as well as the purchase and distribution of agricultural products. One of their key objectives is to fulfill government quotas for agricultural production and food self-sufficiency.

Mahalla/Qishlaq Councils

These councils are an extension of regional and central governments into the local community with little capacity for initiative. They depend on the collective farms economically and on the district administrations administratively. They perform administrative functions such as registering the population and distributing welfare support.

Registration Procedures for Private Farmers

- 1. Apply to the *shirkat* and *hakim* for permission.
- 2. Prepare a business plan.
- 3. Receive permission from the *shirkat* commission for land use, as well as the general meeting of the *shirkat*.
- 4. Receive a certificate from the rural administration concerning place of residence and composition of the private farm household.
- 5. Receive permission from the *hakimiyat* commission on land allocation.
- 6. Agreement between the farmer and the *shirkat* on land allocation.
- 7. Creation of a map indicating the boundaries of the private farm.
- 8. Preparation of statute for the private farm.
- 9. Obtaining stamps for all of the documentation.
- 10. Presentation of all of the aforementioned documents to the district commission for land allocation for final decision of the *hakimiyat*, followed by signature of the *hakim*.

(Source: World Bank, 2001)

Access to Farm Inputs and Services

There are a small number of state-controlled enterprises that dictate the terms and conditions of supplies of inputs and services such as fertilizers, pesticides, seeds and machinery. Due to traditional ties between the state enterprises and the state farms, the state/collective farms get the supplies first. Private *dekhans* and household farms then obtain their supplies through the state/collective farms.

Fertilizers and Pesticides

Because fertilizers and pesticides are expensive and often in short supply, both are significantly underutilized. Current fertilizer use is perhaps 50 percent of recommended rates. The distribution of these fertilizers is also weak because supplies are provided only on state/collective enterprise plans and credits, which is budgeted in advance of need rather than via the market. In some cases, large collectives may include the needs of *dekhan* and household farmers in their order, but these needs are often ignored.

Prices of fertilizers and pesticides are determined by the government. In addition to a factory-to-farm service fee, other fees are added along the way to the final purchaser; a 17 percent value-added-tax (VAT) was dropped in April, 1996, however.

Pesticides are no longer widely used in Uzbekistan. Although 90 percent of the cotton crop and about 50 percent of the grape crop is sprayed, less than 25 percent of the wheat crop, 10 percent of the melon crop and only five percent of the potato and alfalfa crops are sprayed. Biological

controls are promoted but only 10 to 15 percent of farmers employ them. Manual weed control is widespread.

Seeds

The national seed monopoly, Uzsabsavotnaveourouglare, is responsible for producing and distributing seeds under the Ministry of Agriculture. It has been a private institution with no state budget since 1990, but no shares have been issued. It reports to the Ministry of Agriculture and Water Management. Representatives of state agencies and state/collective farms elect its manager. Uzsabsavotnaveourouglare generally provides a sufficient quantity of seed through domestic production and imports. It contracts seed production to about 20 percent of Uzbekistan's state/collective farms, provides them 25 percent of the expected value of the seed production quota in advance and pays for the remainder upon delivery. Payment is in the form of cash or in-kind (fruits and vegetables). The state/collective farms can sell surplus production to farmers through 127 sales outlets. Uzbekistan now has five cotton corporations and two more will be added. These corporations grow, process (delint, clean and calibrate), package and distribute seeds. The State Breeding Center, Uzdavourouenzoratmarkaz, tests and certifies these seeds.

Farm Machinery

Uzbekistan has about half the machinery per hectare of cultivation than found in competitive farm economies such as the United States or Argentina. Its machinery is also generally older, of poor quality and costs more to maintain and operate. The average age of trucks and tractors is 10 years. Shortages of spare parts are endemic. Lack of personal accountability on state/collective farms for maintaining the equipment exacerbates these problems. As a result, equipment use is declining significantly. Machine harvesting of the cotton crop also declined from 40 percent in 1992-93 to four percent in 1997.

The State Committee for Supply and Maintenance, Uzselkozsnobremont, is responsible for supplying and servicing agricultural equipment, as well as designing and manufacturing some equipment. It is a state monopoly with over 60,000 employees and machinery depots in all oblasts and various districts. It has established a joint venture with Case International, Inc. to manufacture, sell, lease and repair farm machinery such as cotton pickers, grain headers, tractors and components. The joint venture is establishing a network of 12 service centers to provide technical support and maintenance of agricultural equipment. It is anticipated that quality, delivery and service will improve over time as this joint venture matures.

Water Management

Sustainable agricultural production in Uzbekistan depends on effective water management. The irrigation system currently suffers from critical problems. The primary contributors to water shortages and significant environmental damage are the distribution of water without charge and technical shortcomings in the irrigation system. Economic, political and ethnic disputes have resulted, as well as declining crop yields.

Uzbekistan receives about 110 mm/year of rainfall. Rainfed agriculture is not possible in most of the country; about 98 percent of arable land is irrigated. A major expansion in the early 1970s

doubled the area that was irrigated in 1945. Wheat, rice cotton and alfalfa demand large amounts of water (26,400 m3/ha for rice and 11,700 m3/ha for wheat), assuming an efficiency rate of 45 percent. The Syrdarya and the Amudarya rivers supply about 80 percent of Uzbekistan's water needs and 90 percent of needs in the western part of the country. The remaining need is met by tapping underground aquifers.

Local officials indicate that about half of the districts suffer water shortages, persistent rises of groundwater and excessive salinization of land. This occurs in part because of the enormous waste of water through over-use, high leaching requirements and poor controls. The irrigation system suffers from leaking and seepage due to technical shortcomings, thus transmission losses are also high. About half of the irrigated lands require pumping to irrigate the high lands and to drain water from lowlands. The equipment in the pumping stations needs repair or replacement. Pipes are corroding and canal linings are deteriorating.

Furthermore, most secondary distribution systems rely on elevated/open concrete conveyance structures that leak excessively, and piped water is pumped continuously regardless of the quantity needed by the end-user. The current structure of water management divides responsibilities and reinforces the free and inefficient use of water. The Ministry of Land Reclamation and Water Resources is responsible for construction and maintenance of irrigation facilities up to the boundaries of the collectives. The district administrations are responsible for the operation of all off-farm irrigation facilities.

On-farm irrigation management is supposed to be the responsibility of the farmer. However, the state and collective farms have retained responsibility for distributing water to *dekhan* and private farms even though the Ministry of Agriculture has been given responsibility for on-farm distribution. The great majority of irrigated lands belong to collective farms, which utilize most of the water. Because of the tradition of free water use and because of the political clout of state/collective farms, water continues to be distributed at no charge, which discourages efficient use.

State and collective farms take advantage of their control over the current shortage of water. They use their distribution power to impose their will on *dekhan* and household farmers by withholding water to those who do not plant according to state quotas. They have also used their clout to push most private farmers onto less desirable, un-irrigated lands. Thirty-five percent of local officials interviewed stated that water problems are the most urgent ones facing their districts. The over-use of irrigated water is damaging the environment and reducing crop yields. The situation has been serious enough to curtail water deliveries by 25 percent since 1980 to try to enforce a policy to preserve the Aral Sea, which is fed by the major rivers in Uzbekistan. If the problem of overuse is not addressed, water-logging and salinity will increase significantly in the next several decades, confining agriculture to salt-tolerant crops and necessitating desalinization of drinking water.

Producers are only limited in their orientation towards the sale of their crops, due to state purchasing of all of the cotton crop and most of the wheat crop. This factor greatly limits the profitability of growing these two crops, which private farms are obligated to grow. Private farms and *shirkat* households use garden plot production primarily for subsistence needs, largely

because state purchasing policies provide them with less income than they would otherwise receive from the output of their larger fields. Livestock production is sold more frequently than crops, because consumption is less and the state does not place the same restrictions on their sale as it does for crops.

Difficulties in crop production

The World Bank survey identified the primary difficulties in growing crops in 2000. When asked about this part of production, private farmers ranked lack of farm machinery and equipment the highest (32 percent), followed by problems with weeding (24 percent), poor irrigation (21 percent), and land salinization (20 percent). *Dekhan* farmers mentioned poor irrigation most frequently (24 percent, despite the fact that they reported better irrigation water supply than other types of farms), followed by pests (21 percent due to their lack of access to agro-chemicals from the state supply network), weeding (21 percent), and land salinization (14 percent). *Shirkat* farmers ranked poor irrigation the highest (26 percent), followed by weeding (24 percent), poor access to or use of farm machinery and equipment (22 percent), and land salinization (17 percent). In general, farmers perceive poor irrigation as their greatest difficulty in 2000, which is natural during a drought year. Weeding and land salinization are perennial problems created by insufficient crop rotation and lack of incentive to conserve water and maintain drainage systems. Equipment is problematic for private farmers because they do not own enough equipment, and for *shirkat* farmers because fleets are aging and improperly maintained.

Livestock

The great majority of private farms, *dekhan* farms, and *shirkat* households engage in livestock production (91 percent, 92 percent, and 94 percent, respectively). There are also specialized livestock *pudrats*, which comprise three percent of the *pudrats* surveyed. Cattle are the most commonly owned type of livestock, especially cows. The average number of cattle owned by private farms is over twice as high as that of *dekhan* farms and shirkat households, because of the limited land held by the latter. The one livestock *pudrat* in the survey that tended cattle has over six times as many cows as private farms. The second most frequently owned type of livestock is fowl, of which private farms raise more than twice as many on average as *dekhan* farms and shirkat households. The majority of farms own sheep and goats. Most livestock *pudrats* surveyed specialize in shepherding, and the number of sheep and goats per *pudrats* is very large in comparison with that of other types of farms. Many more private farmers own horses than *dekhan* farms and *shirkat* households, while the opposite is true of donkeys. Very few farms engage in beekeeping or raise pigs.

Fresh fruit and vegetable sub-sector

The lack of refrigerated transport substantially weakens the ability of farmers to export much farther than the local market or a local processor. Refrigerated trucks do come from Russia to pick up fresh produce for the Moscow market, but these are small and isolated trucking operations compared to the high volume of produce. Retarding investment in refrigerated transport is the high cost of corrupt or mafia groups extracting rent to ensure safe transport. All transport to the Russian or Kazak markets were reported to be required to go through one

company to facilitate border crossing and security or the transporter risked losing the entire load. The cost of the "security" service is reported to be \$1,500 to \$2,000 per truckload. These charges substantially reduce the volume and markets for fruits and vegetables that can pay the "freight" and still be profitable.

Mafia control is not only in transport. Closing down the bazaars last fall was an apparent attempt by the government to control informal foreign exchange. Others report that this was designed to institute a government-sanctioned wholesale control structure whereby all retail consumer items had to be purchased through two primary wholesalers that represented the two political camps of Uzbekistan—Tashkent and Samarkand.

Finance and credit

Most of the formal financing of agricultural production is provided through the State Fund for Agricultural Purchasers of the Ministry of Finance that is intermediated through several state commercial banks. Tied to this financing are farmer commitments for production of targeted tonnage per hectare of cotton and wheat. This financing mechanism assures uninterrupted supplies of inputs but only through the state monopoly. Inputs are largely subsidized with fertilizers provided at a discount to world market prices. With credit only from the state and inputs at subsidized rates commercial suppliers competing with the state system has been precluded.

Converting this state-subsidized system to a commercially viable system that could also facilitate input financing is necessary if Uzbekistan is to optimize agricultural production to all input costs including land and irrigation. In the near term, control of inputs and financing enables the government to continue to control agricultural production toward cotton and wheat regardless of other reforms to land rights or other formal state orders. Until a private inputs supply system exists with non-government financing for producers, government control of farmer cropping decisions is likely to continue.

At present, the government would not tolerate competition with the state supply system. World Bank attempts to have private supply facilities in its pilot *raions* of the Rural Enterprise Restructuring Project were rejected by the government. One approach that may catalyze development of a private inputs business is for a donor project implemented by a contractor like the IFDC to provide farmers with the latest information on seed varieties, fertilizers, and appropriate CPCs for the fruits and vegetables of their household plots. Uzbek entrepreneurs would find ways of importing these highly valued inputs through the current maze of cross border transactions. The government would largely ignore its development as it applied to the household plots, not interfering with the government's monopoly over cotton and wheat inputs.

Leasing

While equipment leasing is available in Uzbekistan, its availability to the vast majority of Uzbek agricultural producers is limited. Most agricultural equipment leasing has been developed and directed by state government and selected banks promoting the sales of Uzbek manufactured agricultural machinery. Most of the Uzbek agricultural machinery and Belarus and Ukrainian

manufactured equipment is leased through GOU owned or controlled leasing companies. This equipment appears to be establishing renewed machinery parks through which producers may gain production and harvesting services for appropriate crops. It will be some time before most Uzbek agricultural producers have sufficient capital or down payment to enable them to leasing newly manufactured agricultural machinery.

B1e. Agribusiness (food processing)

The fruit and vegetable processing industry in Uzbekistan produces a full range of products with good market potential for which the raw material can be grown domestically in a competitive production environment. However, the quality and presentation of the products needs to be significantly improved, which requires technical assistance and significant investment.¹⁰

- Almost all processing enterprises are operating well below production capacity. This can, in part, be attributed to failure on the part of primary producers to meet processing requirements due to low productivity.
- Lack of working capital and delays in receiving payment from processors contribute to the low productivity performance. As a consequence, many of the farms find themselves in a downward production spiral. On the other hand, given the depressed export market for the type of commodities produced, the current processing capacity may be regarded as exceeding market demand.
- Most of the processing plants are operating with outdated technology and require large investment in equipment and general infrastructure if they are to compete internationally.
- There is an urgent need for agro-industry restructuring that would allow the more efficient processing enterprises to increase their throughput and engage in a program of capital investment, while allowing the processors at the lower end of the productivity spectrum to cease operations or amalgamate with other processors.
- In the context of restructuring, it has been noted also that all canneries are engaged in producing a similar range of products. Thus, an agro-industry strategy should extend to encouraging product specialization. This would have the impact of reducing costs through less frequent changes of the production line as well as giving the opportunity to develop greater expertise in the processing of individual products.
- The current availability of quality packaging is a major constraint to the sector. The problems relate to inappropriate sizes of packages/containers for the market, unsuitable container closures, and use of materials that are banned internationally, and the high cost of the domestically produced materials. At the same time foreign currency limitations restrict the imports of better quality packaging.

¹⁰ TACIS 1999 report on food processing

- Apart from limitations on the availability of fertilizers, many farms have insufficient resources for the control of pests and diseases in their vineyards and orchards.
- Tomato paste is a product with good potential for development. However, there is considerable room to improve the competitiveness of the product by improving the varieties grown by primary producers. The use of dated varieties not only affects the yield of the crop but also the quality of the processed product.
- Quality control is a critical aspect of the processing operation that extends all the way
 from the selection of the raw material to the placement of the final processed product on
 the shop shelf. Quality control must be carried out by trained personnel with access to
 proper analytic facilities (laboratory) and operating to a quality manual drawn-up within
 the company. The processing technology and facilities must match international
 standards if the products are to compete on the international markets.
- Financial data forthcoming from the processing enterprises falls well short of that required to make any detailed business assessment of individual enterprises. Despite the low level of capacity utilization most enterprises reported profitable operations. However, it would appear that current accountancy procedures do not adequately account for depreciation in the financial statements, e.g. depreciation is calculated on an insufficiently corrected historical asset price rather than on replacement cost.

Agricultural Processing Issues

Although GOU says it has privatized the agro-processing industry, it retains control through monopoly and monopsony in most commodity sectors; state ownership/management control of processors; administrative controls on most aspects of business; and a ban on exports. A small number of genuinely private agro-processors have begun to emerge that could bring genuine competition throughout the industry.

GOU owns and manages the industry through a 1992 agro-processing law and several subsequent presidential decrees. Most former state processing enterprises have been privatized through the distribution of shares to management, employees and private individuals. However, the State Property Fund retains an absolute majority of shares in all strategic enterprises and between 5 and 30 percent of shares in other processors. Various commodity associations are responsible for administering these shares to all shareholders, and membership in these associations is mandatory. Further, local governments appoint the senior management of these enterprises.

GOU also controls processing through a large number of regulations and practices that determine most important decisions of these enterprises. Such controls include: 1) production quotas; 2) dictated pricing on a cost-plus basis; 3) selection of customers and suppliers; 4) approval of employee salaries; 5) approval of capital investment; and 6) subsidies of inputs, processing and distribution. In many commodity sectors, associations controlled by the Ministry of Agriculture and/or district administrations have been established to monitor compliance, address coordination problems and, in many cases, to conduct the marketing and sales of the products.

The structure of the processing industry ensures that all of Uzbekistan's agriculture remains under government control. Monopoly and monopsony reign. There is usually only one processing facility per district for commodities such as cotton, vegetables, fruits, meats and hides, which covers almost all agricultural production in the country. For example, there are only 179 cotton gins for the country's 163 districts. Most cotton growers must sell to only one processor. The processors exist to impose government control on agriculture. For example, a significant proportion of grapes are grown by the private sector (about 37 percent) with state/collective farms producing the remainder. State/collective farms sell their grapes directly to the market, including the export market. None of their production goes through state associations or trading organizations. However, private grape producers must sell 100 percent of their output through government-controlled associations and trade organizations.

Milk is the most liberalized commodity market in Uzbekistan. About 14 percent of private household farm milk production, four percent of total production, is sold directly to bazaars and street markets.

However, government control of processing is weakening. The Ministry of Finance has established the Main Department of Antimonopoly and Price Policy to encourage competitive pricing as well as the Fund for Price Regulation to mitigate the effects of price increases. The have a positive impact on the industry as demonstrated by several new private processing programs (cotton processing and textiles) established with financing by domestic banks. These private enterprises include textile mills, meat processors, bakeries, dairies and fruit processors. Some are extensions of private trading companies while others have been developed by private farms.

The pervasive government control of agricultural processing depresses demand for agricultural products and the prices paid for them. Without a market-oriented processing industry, Uzbekistan's agricultural sector cannot meet its potential and incomes and employment will continue to suffer greatly.

Finance and credit

Agro-food processing firms have traditionally financed themselves largely with their own cash flow, paying farmers for their harvest after they have received payment for their processed products. State-owned enterprises received working capital financing from state banks during Soviet times as a budget allocation based on planned production numbers. After independence many processors failed as their primary Russian markets collapsed. Many food processing SOEs have been privatized, leaving about 10 percent for final privatization.

Food processors using Soviet era equipment and packaging have managed to convince many growers to provide them with product by promising payment after the goods are sold. This relationship has worked erratically, with many disputes on both sides. Producers claim that the processors cheat them and never pay them for their product. Processors maintain that the quality is so low and inconsistent that they lost money on the sale and were unable to pay growers.

Producers generally provide a poorer quality product for processing and save the best quality for fresh sale at markets. Most independent observers agree that product quality has been a problem. Many processors have not been professionally managed and frequently have experienced high costs that wipe out profit margins.

Some bright spots exit. Some Uzbek processors have relationships dating from the Soviet era with Russian firms in Moscow that have generated export sales. These relationships vary from Russian-provided financing for growing and processing and Russian trucks for transport to Moscow. Russian trucks deliver seed, fertilizer, and CPCs to the processing firm, which distributes to its contract growers. The growers deliver their harvest to the processor, which then delivers processed product to the Russian buyers. Other arrangements require Uzbek product delivery at the Kazakhstan border for payment. There were also reports of Russian refrigerated transport picking up several truckloads of fresh Uzbek produce for cash or bartered goods and then transporting the produce to the fresh fruit and vegetable markets in Moscow. Other reports are Uzbek transport of processed products to Moscow with a return of frozen poultry for the Uzbek market. These barter transactions avoid foreign exchange conversions and taxes.

The existence of these cross border barter transactions transporting product over 5,000 kilometers suggest that there is still high value in the Uzbek product that is not yet being realized by Uzbek firms. Pragma has been working with food processors in the Fergana Valley to develop grower delivery contracts between processors and members of a farmers association. Demonstrated performance under these contracts is the beginning of sustainable value flow that should support working capital loans of commercial banks trying to develop new commercial business. Using successful commercial approaches and expanding them to include bank capital financing is one of the best approaches for injecting more bank financing into the food processing/grower relationship.

B1f. Water resource management

Background

Almost all of the 4.3 million ha of agricultural land in Uzbekistan is irrigated (429 647 ha); 90 percent of the irrigated land is cropland and the remainder pasture. The on-farm irrigation network includes 173,181 km of canals. The main method of irrigation is furrow by gravity but about 25 percent of the system is pumped. Annually, the water needs for both vegetation (April -September) and non-vegetation (October to March) ranges from 110 to 115 billion m3 of water. The remains of ancient irrigation can be found in the province of Khorezm, where the systems traditionally contained smaller fields. Being a downstream country of the Aral Sea Basin, about half off the agricultural land in Uzbekistan suffers from light to heavy salinity (the autonomous republic of Karakalpakistan).

Water Legislation

The Water Law drafted in 1993 considered the water rights and allocations under similar arrangements as it was in the Soviet times. A new Water Code is under preparation and is

¹¹ The World Bank analysis showed that most of the pumped systems can be profitable

expected to be prepared in the first quarter of 2004, with the Ministry of Agriculture and Water cooperating on the draft with Ministries of Justice and Finance. According to the 1993 Law on Water Use, sale and trade of water rights is strictly forbidden.

Water use and pricing

Due primarily to the deterioration of irrigation and drainage infrastructure, at least 50 percent of water is lost between the source and the fields. Water use per hectare averages 12,000 to 14,000 m3. These figures do not compare favorably with other arid countries such as India and Pakistan (around 10,000 m3/ha), where leaching is also practiced and irrigation is inefficient.

There are no officially levied charges for irrigation water delivery, but 0.012 cents per m3 is included in the land tax. This cost, which accounts for almost all the state budget for agriculture, is \$200 million per year.

Organization of water management

The Ministry of Agriculture and Water Resources manages a highly centralized and vertically integrated structure of water management, which operates according to the plans formulated by the Ministry and handed down to province and district irrigation departments. Water management on the farm is the responsibility of the *shirkat* or *dehkan* farm, although local authorities and district irrigation departments interfere even at this level when they see fit. For example the local *hakim* in the province of Djizak has influenced *shirkats* to be members of Agroservice Centers rather than becoming Water User Associations (WUAs). It is the aim of the new laws to disassociate the local government from the water management at the users' level. Stronger and more sustainable WUAs should alleviate this and allow farmers to exercise their rights.

The ministry reorganization that is under preparation (headed by the Cabinet) will most likely include liquidation of the *raivodhozes*—district department of the MOAWR—and propose creating a structure for basin water management. For example, the Zaravshan basin (for which the NRMP project will be a model) would have Samarkand HQ and 3 *oblasts* - Kashkadarya, Navoyi, and Bukhara.

It is also possible, that the new water law will introduce price for water services delivery, perhaps gradually applied.

Water Users Associations

As result of farm restructuring and proposed changes for water management, the farmers are encouraged to form WUAs under the 2002 decree # 8 of the Cabinet of Ministers. The basis for their establishment is the Civil Code, Art 77. The new Water Law that is due in 2004 is expected to cover some aspects of the WUAs as well.

¹² Estimates range from 40 percent (MAWR) to over 60 percent (TACIS). The latter figure is based upon an in-depth study of farms in Uzbekistan. See: TACIS, *Improving the Productivity of Water in Central Asia:* (Tashkent: TACIS, 2000).

At present the WUAs are being established in an accelerated fashion. After several pilot regions have been explored, however, it would seem more from top to bottom, as there has not been much time allowed for proper mobilization of farmers. The Ministry has a dedicated staff for WUA support and the staff of that division has been involved in numerous workshops on WUAs and training seminars, as well as direct involvement in a pilot project in Karakalpakistan. The MOAWR reported that as of May 1, 2003, 21,291 farmers have joined 268 WUAs, servicing 668,418 ha of irrigated land. This entails 28,711 km of irrigation networks, and 22,278 km of drains. In Karakalpakistan, 40 WUAs were created covering about 110,808 ha.

WUA unit problems include:

- Inadequate number of water measuring hydro-posts and small tools and measuring devices
- When WUAs raise funds for O&M of a delivery canal, irrigated house plots adjacent to a WUA or in between two WUAs do not contribute since they are not members.
- Unclear policy—WUA functions as a juridical non-commercial entity but should be exempted from VAT, profit, property and land tax, and tax for water fund but as an employer, the WUA must pay salary, insurance, and pension and labor fund.
- Unfavorable tax status for the WUAs.
- WUA are not allowed to develop enterprise or enter into a contract with private enterprise (for ex. for cleaning canals).
- WUAs have no trained field personnel.
- WUAs have no good means for conflict resolution.
- WUAs do not know how to prepare yearly plan of operations.

Government Plans

The Uzbek government understands that the agricultural potential of the country could be put to more effective use. This can be judged from the latest activities, in particular the adoption of a number of enactments including, "On important direction for deeper reforms in agriculture," and "On improving the mechanism of payment for produced and realised cotton fibre," in addition to a conception for the development of farms in the near future drawn up by the Cabinet of Ministers of Uzbekistan for 2003-2005, which should be approved before the end of this June.

This proves that the government is serious about its reforms of the agricultural sector. For irrigation the important aim is strengthening economic reforms in the agricultural sector, improving production relations in the villages, introducing corresponding market principles of organizational structure management of agricultural productions, and setting up long-term

systems of land lease for irrigated and limited irrigation lands. Starting next year, all collective farms will change to land lease. Low profit collective farms will have the right to transform into other forms of cooperatives. Farmers will compete for long-term leases (up to 50 years) with rights to inheritance during the lease term. Ideally, all 177 existing *shirkats* that exist in the country will be restructured as private farms under the 2003-5 plan.

Donor and International Finance Institutions Projects

The GOU is also serious about changing the style of administrative water management by *raion* and *oblasts* and plans to gradually change the system to river basin management, for which the Zaravshan river basin project, executed by the NRMP/USAID and MOAWR should serve as a model. Although the project is highly technical and contains mostly rehabilitation of facilities, heavy equipment, office space and radio communication are provided. The project also includes components of computerized data base development and training of management and operations personnel as well as establishment of training facility at the HQ.

The World Bank Project on Water and Environmental Management Project (Component A1 of the Global Environment Fund) is being concluded in June 2003. The project was concerned with development of national and regional water and salt plans and strategy development by Regional Working Groups of all five states (by Royal Haskoning). The WB had a project for the Irrigation Rehabilitation of Karshi pumping station, however, six of the pumping stages are in Turkmenistan, and the project seems to be frozen due to the political situation. A third project that concerns wetland drainage in South Karakalpakistan is under negotiation and should start in August 2003. Two water supply and health projects seemed to experience problems with procurement, and have closed down.

The ADB in Uzbekistan has until now had interests other than agriculture. The agricultural/water project is a five-year project for rehabilitation of irrigation and drainage in the Akaltyn district, and started in 2002 at \$72 million (\$36 million is government contribution). The irrigation and drainage infrastructure will be rehabilitated at the cost of \$40 million. The project has a machinery services component and training and extension to farmers, with agribusiness advisory center. It also provides WUA staff with training in agriculture and water management.

The ADB is financing another water project, the Amuzhang Irrigation Canal System Rehabilitation. The total cost will be \$120 million; at the moment there is a feasibility study conducted by DHV consultants. The project is to rehabilitate three pumping stations, three 140m dynamic lifts and two big canals, and also has an institutional component, advisory services, and five pilot areas for on-farm level improvements. The ADB is looking for co-financing options now. The Amuzhang canal associated area cover 110,000 ha. Reportedly, also TACIS has a small project in the Akaltyn district for on-farm water management.

The ADB has discussed with the government providing financial services to individual farmers by establishing credit unions and support for WUAs in Akaltyn, which definitely need assistance. Here, the USAID experience could be proven again. After the new land law passes and farmers can use their land rights as collateral, one problem with the credit will be solved. TA for credit unions has been provided with USAID grant and five credit unions have been

established; 20 credit unions is a goal. The ADB has also started to provide TA to prepare a land cadastre with the Technical bureau under the Cabinet of Ministers.

Major work was done on pilot WUAs by various donors and organizations. Natural Resource Management Project (NRMP) has been active in this regard, providing capacity for development and strengthening to six WUAs in Uzbekistan. In addition, the NRMP donated water measuring instruments, equipment to clean ditches, provided roundtable discussions and seminars to explain the WUA organization itself, helped the progress of development to enhance sustainability, and provided advice on business development plans, agro-technical measures and a forum to exchange information (one WUA near Fergana - Okoltyn the mission visited). The SDC also supports pilot WUA development in the Fergana Valley of three countries and considers compatibility of laws for their functioning; this is under a project geared to support institutional development of integrated water management.

The Government is working closely with the NRMP project water components to pilot the basin water management and WUAs in different areas, including Karakalpakistan. Regarding the WUAs formation, it can only be hoped that the new laws will create a better basis for WUA creation and that the Government will lend its support to this new form of rural development rather than dictate¹³ what needs to be done, so that the associations can develop into sustainable self-reliant entities with democratic and transparent management.

Water/Irrigation Management Issues

The low yields in crop production stem not only from the technical issues but also inadequate policies, management and organization problems. The technical issues include:

- Obsolete and inadequate large infrastructure (malfunctioning or broken pumps, canals lining, absence of cross regulators, etc.)
- On-farm poorly maintain irrigation and drainage network. The on-farm activities have poor land preparation, no land leveling, and long furrows, all counting for great water losses that translate into losses in water and land productivity.
- New farmers may need training and guidance.
- Managerial and organizational losses—obviously related to the land reform and the fact that the *raivodhozes* need to service many smaller water users if these are not united in an association.
- Rent seeking and interference by local government.

¹³ For example, the charter and organizational structure of WUA needs to be presented as a model, not as a prescribed form or instrument to be followed.

For WUA establishment and development, the needs include:

- Appropriate and adequate legal framework, clear rights and obligations of water users to WUA and WUA to bulk water provider, including by-laws
- Provisions and conditions for a suitable and democratic development
- Start up capital for office, small equipment, tools, radio communication
- Steady source of advice and training for WUA staff and WUA leadership
- WUA (or local NGOs) supporting staff in *oblast* water departments to organize training for farmers in the field on measuring techniques and technology
- Mechanism engaging farmers in a participatory format and mobilizing the water users resulting in creation of democratically formed WUAs
- Arbitration mechanism and training in conflict resolution of WUAs
- Training in administration, financial and O&M management
- Measuring devices and field equipment for cleaning ditches.

B1h. Summary of key issues

Agricultural production issues:

- Agronomic practices and farm management
- Land ownership and use rights
- Access to inputs and appropriate technology
- Access to finance
- Membership organizations
- Market linkages

Water management issues:

- Incomplete legal and regulatory framework
- Need for targeted water user association (WUAs) development
- Capacity of water managers (state and WUAs)
- Pricing policy and cost recovery
- Functional infrastructure and distribution technology
- On-farm water measuring devices

Agro-processing issues:

- Business and resource management
- Access to quantity and quality raw materials

- Access to supplies and equipment
- Access to finance
- Membership organizations
- Market linkages

Allied industry issues:

- Input supplies
 - o Private ownership
 - Increased services
- Water delivery (quantity and timeliness)
- Mechanization units
 - o Private ownership
 - o Appropriate technology
 - Leasing options
- Legal and tax advice

Financial services issues:

- Trust between businesses and creditors
- Borrower financial management creditors
- Lender understanding of producer and agro-industries
- Limited borrower assets
- Government policies

Market and market intermediary issues:

- Insufficient market intelligence
- Trade linkages
- Transportation, security, and storage
- Market infrastructure
- Local assemblers working capital and transport
- Wholesalers regular supply volume and quality
- Retailers packaging, labeling, price

Enabling environment issues:

- Legal rights awareness: land, water, and commercial
- Conflict mediation and arbitration
- Tax reform
- Commercial legal regime
- Cross border trade barriers
- Policy formation mechanisms.

B2. Examination of donor programs

The consultants provide in this section of the report key points obtained during meetings with leaders of the different donor support projects, ministries, and NGOs.

B2a. USAID/CAR projects

Pragma – Enterprise Development Center - Tashkent

Patrick Dieterich, Director Makhamatjon Kasimov, Agribusiness Advisor Shaun Doherty, Head of Office, Ferghana

Key points:

- Fruit and vegetable (F&V) processing in the Fergana Valley has changed dramatically in recent years.
- There are two types of F&V processors—new smaller firms with modern equipment, and old Soviet style plants.
- There are over 100 F&V plants in Fergana: six with Western join ventures, 50 fully private small and medium sized and with good potential for growth.
- Two sources of fruit and vegetables: first from household plots, second private farmers with 5 to 10 hectares of land. These divisions of formerly specialized collective farms depend on the districts (close to mountain areas), especially where cotton does not grow well.
- Green house production provides multiple harvests and a great part of the production goes to Russia. Companies with linkages are able to get around the border problems.
- Air transport direct to Moscow is good for flowers, green herb, and high value spices.
- EDP has formed an F&V producers working group from OSH and Fergana; discussions focus on regulatory issues, with the help of ABA/CEELI.
- There is a need to influence the top decision makers regarding policy issues; hard to make change at the local level.
- There is a need to harmonize processing and labeling standards and sanitary issues.
- Need to simplify trade regulations and procedures.

- Regional (Osh/Fergana) trade—working on case-by-case trade with specific factories. The GOU is allowing a foot in the door with this approach.
- There is a need to link the Tajik side of the valley to these F&V development efforts.
- Major problem for F&V in the valley is too few private input suppliers and equipment rental companies.
- The Andegan *Oblast* Fruit and Vegetable Association is not well organized but has potential to be a strong private member cooperative; needs further assistance.
- Finance of working capital is a critical issue that is not being addressed.
- Joint ventures with Russian firms seem to help working capital situation; companies need modern equipment if they are to draw investors. Russians also willing to provide supply contracts at reasonable terms and provide inputs, such as packaging.
- Contract enforcement is a recurring issue; there is no mediation/arbitration capacity in the Valley and there are many misunderstandings due to poor communication.
- Starting to introduce the Feragna brand concept; early discussions are positive
- Recommendations include: Finance is key, especially in the \$5 to 50,000 range for
 working capital and capital improvements; packaging must be upgraded in order to
 export; there is a need for loan officer training on agricultural risk issues; borrowers also
 need training on how to access finance; quality programs are essential for domestic and
 export markets.

PA Consulting – Central Asian Natural Resources Management Program - Tashkent

Randolph Bruton, First Deputy Chief of Party John Baxter, Water Task Leaders

Key points:

- WUAs can work if the local *akim* is supportive and exemption from state orders can be negotiated; the WUAs are a relatively new entity that requires getting the local government, water departments, and farmers around a table to talk about finance and tax issues; this is a major challenge.
- The project is implementing demonstrations of appropriate technology with Case Inc. at their center. Will do a demonstration site at each WUA.

- The project is working with six WUAs; organized elections; half of former chairmen were removed by members; elected executive committee; provide transparency.
- WUAs activities include canal management, field water management, and organizational capacity development.
- One pilot area had terrific results with land leveling; cost \$200 per hectare, but water is delivered in one day and not four days which is considerable savings; there seems to be sufficient equipment in the *oblasts* to do land leveling; access and cost of diesel fuel is a problem. On-farm issues also include use of siphon technology, planting techniques, disking fields and not plowing, stop winter leaching practices, education at all levels.
- Agriculture production problems include lack of equipment, fertilizer and inputs at the right time; most farms need water infrastructure repairs.
- NRMP should look at policy issues and collaborate with other donor projects.
- Issue of on-farm land leveling for increased water efficiency is a bone of contention with the Ministry; the government wants to use funds for the main water system and not for the on-farm system despite major benefits from land leveling; other issues include the role and responsibilities of water user associations and household water use and payment.
- Development of WUAs is a demanding process; getting the general assembly to accept usefulness of the organization, management of the association, and develop trust in committee managers takes time.
- The chairmen of the *shirkats* are the movers and shakers and have the power to change if they want to; the government still controls cash, equipment, inputs, and marketing.
- In Andegon region, Ozod site, where PA supports WUAs, the local government officials seem to be very cooperative and supported; farmers rented from *shirkat* 350 hectares for second crop in rice; this region seems to be more entrepreneurial than other regions.

Bank Supervision—Bearing Point

Key points:

Bank supervisory technical assistance has been provided to the CBU for almost a year to
improve central banking functions as well as bank supervision and examination. While
CBU officials have been very interested in understanding the international standard
central banking and bank supervisory standards, progress on CBU adoption of
recommended changes and improvements has been slow. A primary issue has been the
lack of interest of the government and CBU management in reforming current practices.

- The technical assistance program, however, provides valuable information about how the generally opaque Uzbek banking system operates. The CBU strongly controls banking activity in Uzbekistan and has significant authority to require banks to follow its direction. Neither banks nor the CBU provides the technical advisors with banking information or texts of secret regulations that the CBU considers too sensitive.
- Most of the banking activity in Uzbekistan is mediating government budgetary funding or undertaking commercial activity on behalf of the government. Little genuine private commercial activity flows through the banking system because banks can delay or prevent funds disbursements, pay the account holders' debtors even over the objections of the account holders, and readily provide information to the tax authorities on the availability of funds. Businesses primarily operate in cash or barter transactions to avoid excessive taxes and to manage the timely flow of its products and revenues.

World Council of Credit Unions—WOCCU

Francis Gonzales, Project Director

Key points:

This USAID-supported program provides technical assistance for credit union development at the core of an ADB project. Implementation of the ADB Credit Union and SME Loan has been delayed due to resolution of final details with the GOU. The USAID program, however, did not need the loan to begin establishment and support of credit unions, and therefore, WOCCU proceeded with credit union development in the fall of 2002. In a short period of time, the following five credit unions have been firmly established and provide basic savings and loan products to their members.

Table 1: Credit Unions Established by May 2003

City	Outstanding Assets
Bohkara	\$80,000
Djizak	\$20,000
Namagano	\$60,000
Novai	\$42,000
Samarkand	\$60,000

These credit unions have the following characteristics:

- These are member driven organizations that provide the services that the member demand and that are within the competence and resources of the credit union.
- Savings deposits bear interest at 4 percent and loans are 7 to 8 percent per annum.

- Within the first five months of operation, the five credit unions attracted \$142,000 in savings deposits with an average deposit of \$479 and had 99 loans outstanding totaling \$62,000 or an average loan of \$627.
- Initially, many customers did not trust the credit union and withdrew their funds one or two times initially to make sure that the credit union operated as purported.
- Each credit union has four to eight employees.
- WOCCU provides monthly onsite examination and review during the first year.
- The loans portfolios of the credit unions are heavily weighted toward agriculture requiring WOCCU to hire an agricultural specialist to assist credit unions in their loan structuring for agriculturally related loans.
- The total loan portfolios of all five credit unions break down as follows:
 - o 37 percent trade (agricultural products, food services, bazaar activities)
 - o 33 percent agricultural production (F&V seeds, CPCs, fertilizers, and livestock)
 - o 12 percent consumer loans
 - o 18 percent all other purposes.
- WOCCU intends to establish five to seven more credit unions in the following cities: Andijan, Fergana City, Kolkan, Syr Darya, Termes, Quarsi, and Heva.
- One is being established in conjunction with a milk processing factory.

While the credit union legislation was a direct response to the ADB \$20 million loan conditions for credit union and SME lending, the credit unions are operating and growing without the \$5 million line of credit earmarked for them in the ADB loan. WOCCU stated that while it has to make the credit unions aware of the \$5 million loan, it hopes that none of the credit unions elect to draw upon it. WOCCU maintains that the extraordinary high loan repayment rate of most credit unions worldwide is attributed to the fact that borrowers and credit union managers are well aware that the loan funds come from their neighbors' savings. When credit unions draw upon external sources for lending, loan repayment rates drop. This rationale is supported by the failure of WB loans to credit unions in Georgia and Romania.

Small Business Enterprise Investment—SAEF

Donald Nicholson, Regional Director

Key points:

SAEF has reviewed hundreds of projects in Uzbekistan for five years without finding a project in which the fund could safely invest. Agricultural, agro-industries, food processing and the like present special difficulties for financing.

Due to the authoritarian and corrupt government, SAEF is not willing to invest in any enterprise where the government has monopoly or monopsony power on the input or output portion of the enterprise's business. This is particularly strong in agriculture, where in its efforts to control cotton and wheat production, it controls the inputs supply (seeds, fertilizers and CPCs) and most of the output markets.

Winrock International – Farmer-to-Farmer Program

Richard McQuady, Regional Director

Key points:

- Winrock is negotiating a four year extension of its current activities that will focus resources on technical training and association development in fewer target regions.
- Andegan regional activities:
 - The Andegan Business Network local entrepreneur's organization active in agricultural product assembly and marketing; greenhouse development; and an association with American Rice on marketing issues.
 - o Andegan seed institute collaborates with US experts on seed catalogue
- Fergana Private Farmers Association has 3,000 members and works with Mercy Corp micro-credit program; agronomic training is very important;
- Private veterinary services hold potential for growth; many veterinarians in Uzbekistan are women; TACIS has worked with vets on artificial insemination activity in the past.
- Winrock will supply volunteers with agricultural equipment backgrounds and water drilling.

B2b. World Bank projects

World Bank Agriculture

Dilshod Khidirov, Operations Officer

The WB spent six years developing a Rural Enterprise Support Project designed to improve 300 to 400 private farmers in five *raions* in different *oblasts*. The government agreed to reduce the state order for cotton to 30 percent of past requirements and permit 70 percent to be sold at market prices. The project will be administered by a Project Implementation Unit established

within the Rural Restructuring Agency of the Ministry of Finance. The RES Project has four components:

- Rural Business Advisory Services (\$1.22 million)
 - o Make farmers more aware of laws and procedures of farm restructuring process.
 - o Provide business planning services.
 - o Provide agricultural, agronomic, and marketing information.
 - o Contract services for growers and processors similar to commercial markets.
 - Deliver services through business planning and extension centers established by the Association of *Dekhan* and Private Farmers.¹⁴
- Rural Finance Credit Line¹⁵ (\$5.93 million)
 - o Provided by Pakhta Bank, Galla Bank and a small private bank, Hamkor Bank, based on credit guidelines agreed upon by WB and GOU.
 - o Loans to producers from \$10,000 for seasonal loans and up to \$100,000 for longer term loans of 18 to 36 months.
 - WB charges banks 6 percent in hard currency and lend it out with a 2.5 percent margin.
 - o Borrowers must have completed all legal procedures for privatization or farm restructuring, as the case may be, and be private or privatized non-farm enterprises.
 - o Each loan supported by borrower's business plan.
- Private Agroservice Enterprises (\$16 million)
 - Subloans of \$1 to \$2 million to newly formed private enterprises and cooperatives of private farmers made through subsidiary loan agreements through the Ministry of Finance.

¹⁴ Association of *Dekhan* and Private Farmers was established through a top-down national and local government organization process, has strong connections to local government officials, and lacks the member driven corporate mission normally associated with private farmer trade associations.

¹⁵ This credit line appears ill-conceived in terms and approach. Providing banks with only 2.5 points over WB funding in hard currency scarcely provides banks with an appropriate margin to cover the high risk variables of intermediating these funds—foreign exchange risk, borrower credit risk, high Uzbek inflation, fluctuating commodity prices, and production risks. Perhaps the GOU has guaranteed the loans for the banks or other credit line features were not revealed

- Loans to enterprises would be 5 to 10 years in term with a debt to equity ratio of 4 to 1 or less
- WB supported for five years until converted to private, self-financing through feebased services for machinery services, agricultural input supply competing with stateowned enterprises.
- Center will provide 50 seminars on various agricultural production business related services—management planning, agronomics, marketing, agricultural engineering,
- o Provide high quality advisory services on appropriate seed varieties, fertilizers, and crop protection chemicals.
- Irrigation rehabilitation and WUA development and support (\$2.31 million)
 - o Rehabilitation of intra and on-farm irrigation canals, especially drainage.
 - Rehabilitation investments will be selected by water user groups to be established under the projects.
 - o Organizational and operational support to help board and management for 50 WUAs.
 - o Federated WUAs developed for the project.
 - o \$7 million for on-farm irrigation rehabilitation.
 - Eight or nine irrigation specialists in each district for assessing equipment and service needs.
 - o Assistance developing appropriate pricing for cost recovery and collection strategies.
 - o Excavation, maintenance and testing equipment.

As further conditions for the project, the WB reports that the GOU committed to requiring farmers to sell only 50 percent of the state order for cotton with the remainder to be sold through 40 trading firms (15 to 20 representatives of international firms, 10 joint ventures and the remainder private Uzbek firms). The GOU will develop an appropriate mechanism for farmers able to mortgage their land lease rights by the end of 2003.

Though the project was finally executed in September 2002, funds have not yet been disbursed due to government resistance to some of the conditions.

International Finance Corporation

Mark Hannafin, Regional Manager Ulugbek Tilayev, Program Officer Umedjan Umarov, Financial Analyst

Key points:

The IFC and EBRD have invested in Uzbek Leasing International for a total of \$6 million in debt and equity funding. The IFC is not pushing for policy reform as a part of its investment but to demonstrate the effectiveness of commercial operated leasing companies. A current problem with Uzbek Leasing is its inability to make leases denominated or indexed to hard currency. This leaves it subject to substantiation asset/liability mismatch with hard currency debt and *soum* denominated leases.

The IFC is looking at the possibility of replicating the successful Tajikistan Farm Ownership model in Uzbekistan. This model provides for a Western-style supply, processing and marketing business cooperative to facilitate productivity and revenue growth of organization and its members. The IFC is seeking strong assurances from the GOU that the organization will have available and reasonably priced access to inputs and to markets. The IFC will attempt to take the ownership model of 365 farmers in the SughdAgroServices in Khujand and fit that structure into Uzbekistan for operational profitability. A cooperative model in Uzbekistan will require investigating the proper legal form in order to allow profit-taking.

The IFC is also currently looking at investing in a food processor in Karakalpakstan and in the privatization of a ginnery in Termez in the Syr Darya region.

B2c. Asian Development Bank projects

Rustam Abdukayumov, Portfolio Management Officer

Key points:

ADB started loan negotiations in 2001 that were not completed until 2002. Not much progress has occurred in government agricultural policy since 2001. The GOU talks about making reform effective both in land rights and replacing the quota system but little has changed. ADB succeeded in getting realistic targets for cotton and wheat in some *raions* reducing, for example, a state order from 50,000 MTs per year to 29,500 (17,000 cotton, 12,500 for wheat). It remains to be seen if government will live up to its statements.

- Irrigation rehabilitation and maintenance
 - o Largest component of \$120 million includes:
 - Canal rehabilitation
 - Pump repairs and refurbishment
 - Alternative pumping—horizontal vs. vertical in some cases
 - o TACIS providing on-farm irrigation technical assistance now in Ok'Koltin *oblast*

- Pilot private farm enterprise support
 - Reduced government orders
 - Free market for excess produced
 - o Free market for inputs (seed, fertilizers, and CPCs)
 - Machinery parks—enable the purchasing of tractors and complementary equipment for farm production services.

Recommendations for USAID

- Decree for Strengthening Agricultural Reform is merely a concept paper for sector development without a strategy:
 - o President is telling the Ministries that there is a green light to develop policies consistent with the decree.
 - Ministry and technocrats need to present strategies and programs but do not know what to do.
 - Opportunity for donor to assist government in developing the implementation strategy.
- Land reform needed to enable land lease rights to be mortgaged.
- Need more support for land management and cadastre system to unify three current cadastre systems
 - State Land Committee, Department of Geography Mapping, and Bureau of Technology Inventory all require registering of land, urban real estate, buildings, and so forth.
 - o Need a universal and simplified electronic system.
- GOU needs assistance with WUAs:
 - None currently performing well
 - o Institutional development very weak
 - Need strong administrative capabilities, auditing function, maintenance and emergency repair capabilities, appropriate water delivery pricing and collection system.

Credit Unions and Microfinance Institutional Support \$20 million

In January 2003, the ADB executed a \$20 million loan with the GOU for strengthening credit unions and SME credit line. The GOU enacted a Law on Credit Unions in 2002 as a precondition to the ADB loan. Implementation and disbursement of the loan is awaiting Ministry of Finance/CBU agreement on which entity will provide the GOU contribution to the program. The primary loan components are:

- Credit Unions (\$5 million)
 - o \$5 million line of credit to facilitate development and strengthening of credit unions.
 - Credit line combined with technical assistance and bank supervisory support provided by WOCCU funded by USAID.
- Microfinance Institution credit line (\$15 million)
 - \$15 million available for onlending by selected banks—Pakhta Bank and Asaka Bank—for developing microlending programs as part of their loan portfolios;
 - LSF Consultants, a German consulting firm, is providing the technical assistance to Pakhta Bank and Asaka Bank.
 - o Loans to be in local currency and 80 percent to farmers.

B2d. European Union projects

EU-TACIS- Tashkent - Support to the National Coordinating Unit

Martin Horseling, Team Leader

Key points:

- TACIS is conducting a program exercise with the government to develop a policy reform agenda to be more pro-active on reform efforts. Invited the Cabinet of Ministers to visit counterparts in Latvia to see results of TACIS efforts there. The EC would like to have a government strategy, with objectives and targets, and a road map on how to get to the desired results. This program is under the deputy prime minister and the coordination unit hopes to have in place by August. All TACIS supported government offices have been asked to prepare policy plan for their sections.
- TACIS has organized workshops to assist the departments in the preparation of their policy reform plans
- The coordination unit will function to screen and orient donor projects to establish common goals and objectives, avoiding redundancies and ensuring coordination. TACIS believes that TA should be the last resort for institutions and will require justification for why a task can not be completed by itself.

- Current portfolio includes assistance to statistics department, modernizing parliament, policy advice on demand, develop, and organize customs, manager training in the EU, university twinning programs, and an institution-building partnership program.
- TACIS has had two poverty alleviation programs in two regions.
- Regional projects include the Aral Sea water management program.
- In 2003 there is a planned irrigation and water management project that will have an environmental strategy for CAR, a policy advisory program, and work with the ADB on land cadastre and unified registry models in a few regions.

EU-TACIS- Tashkent - Support for the Implementation of the Partnership and Cooperation Agreement between the EU and Uzbekistan

Adrian Strain, Team Leader

TACIS General Economic and Agriculture Policy Reform

Key points:

- As a matter of EU TACIS policy, TACIS has avoided becoming involved in agricultural sector projects due to limited funding for Central Asia and the perceived high cost of any program for agriculture in Central Asia that could be effective.
- In May, 1999, EU TACIS entered into a policy coordinating agreement with the GOU for reforming 117 Uzbek legal and regulatory areas to harmonize them with EU law and regulations and therefore international standards. Substantial work was done in the early part of the program in: Competition Law, Companies Law, Tax, and Foreign Investment.
- A comprehensive comparison between Uzbek and EU law was developed and many conferences and workshops on the legal reforms needed. Much of this work, however, stayed on the shelf for several years. It is now being revived as part of the GOU's effort to gain accession to the WTO, as the government is concerned that Russia will gain accession to the WTO prior to Uzbekistan.
- In an effort to facilitate policy reform, TACIS is combining this effort with assisting the government in policy reform conforming to the PCA and gaining accession to WTO.
 - Hands-on help to ministries on 30 WTO agreements and 150 bilateral agreements necessary to gain WTO Accession:
 - Help on agriculture and advisory services is mostly complete.

- Help on intellectual property, public procurement, registration of companies, and consumer protection is just beginning.
- The GOU Memorandum of the Foreign Trade Regime for WTO Accession has been submitted and a Working Party Group has been formed.
- The Working Party is focusing on three major areas: Agriculture, Services, and Trade in Goods:
 - In the services area, TACIS has provided three months of technical input in banking reform but more is needed.
 - TACIS/Japan/USAID need to coordinate banking reform effort to achieve some reforms of the largely directed credit banking system;
- TACIS has already provided a number of travel visits for Uzbek government officials to visit the EU in Brussels, the WTO in Geneva, and Polish officials in Warsaw that are currently going through the EU law and regulatory harmonization process.
- TACIS is in the process of dividing the operational articles of the PCA into clusters, developing action plans for working with appropriate ministries and establishing a database for monitoring compliance activities.
- Other salient points concern the Uzbek judiciary. The Uzbek judicial system needs substantial reformation from the corrupt and Stalinist legal system that it is.
 - CocaCola closed its operations due to its inability to obtain support for commercial enterprise without corruption at any level of government;
 - Procter & Gamble made a similar decision to close Uzbek operations and rely on imports from Russian production;
 - Other major foreign firms are interested in leaving Uzbekistan should they be able to recover some of their investment through barter repatriation.
- TACIS welcomes USAID collaboration, participation or support in any area of policy, legislation, or regulation.

TACIS Land Registration

- TACIS prepared to assist the GOU in developing a unified land cadastre and registry.
- GOU was prepared to tender a project for one cadastre when ADB agree to conduct a pilot registry stunting legislative development.

B2c. Other donor projects

Consulting Group on International Agricultural Research – Tashkent CGIAR Program for Central Asia and the Caucasus Dr. Raj Paroda, Director

Key points:

- USAID must consider agriculture in Uzbekistan as a top priority; especially in view of the transition process, but also to play an important role in food security, sustainability, and development.
- Uzbekistan is changing its policies towards a more liberalized approach; but they are not equipped with technical options and infrastructure; opportunities for AID abound.
- The fundamental problem originates in the Soviet model for agriculture centered on cotton, wheat and some livestock; people on farms were workers and farmers; people with access to land are not modern farmers and they need to be educated; the opportunity for AID is to link US land grant institutions with local institutions and focus on human resource development.
- The region is rich in genetic resources that should be preserved through international working arrangements.
- Carbon sequestering is also an opportunity for Uzbekistan.
- In order to instigate deep policy reform, donor efforts should be large and extensive; a small pilot activity will not create the pressure needed to make meaningful reforms.
- Water conservation should be given the highest priority by the government; AID should provide support and demonstrate techniques.
- Recent government pilots are useful in that there is more awareness today of the need for change than ever before; the government remains oriented on food security and generating resources for the budget to provide inputs to farmers.
- AID should be ready to help in those regions where the government pulls back on the input supply and land with credit programs for farmers.
- Uzbekistan is land-locked and knowledge-locked; need regional cooperation with academic institutes and education curriculum development

Ministry of Agriculture and Water Resources (MAVR)

A. Djalaov, First Deputy Minister

Key points:

- Referred to the March 23, 2003 Presidential Decree to further agricultural reform in Uzbekistan (See Annex C); in response to this decree the Ministry is preparing a strategy with new regulations for the government to consider. The draft document includes private farming issues, infrastructure in rural areas, restructuring of the Ministry and branch sectors, and improved contract agreements with producers.
- In 2002, the Ministry liquidated 330 *shirkat* and 200 to 300 more planned in 2003.
- There are now 11 districts (*raions*) in Uzbekistan with no *shirkats*, and in these districts the establishment of market infrastructure is starting to occur.
- The Ministry has proposed to USAID to establish a pilot model with all related infrastructure; from the side of the Ministry it is hard to do all.
- Market infrastructure includes alternate mechanization units, micro-credit, input supply, milling, fertilizer, private services, and water user associations.
- The structure of services does not work for farmers; it must be all inclusive to work. The government will allow full sphere of services in the pilot area.
- The Presidential Decree emphasized the change from an administrative structure to a water basin structure.
- This year, in four *oblasts*, commercial banks financed agriculture and not the state banks; the Ministry would like to expand this experience
- It is important to establish alternative structures for farmers, such as western style cooperatives; for this training is required and technical assistance.
- Regarding food processing, the Ministry would like to provide producers with credit in a more timely way to increase production; processors can't pay producers on time and capacity utilization is very low.
- There are 80,000 private farmers in Uzbekistan. USAID should help with a massive training effort.
- Land and water issues are together; legal advisory centers to help farmers would be a useful part of the services needed in pilot activity.

- The government will get rid of 30 percent of the civil servants this year.
- The Ministry likes the Case Inc. model where US advisors work and train local specialists; this kind of training is very important.

Ministry of Agriculture and Water Resources Juridical Department *M. Khusenov, Head of the Judicial Department*

GOU priorities in Agriculture

- Establish an effective system of contractual rent agreements between the state and all *shirkats*—reflecting an amendment to existing law.
- Focus on private farms to make them the predominant agricultural unit in Uzbekistan—intend to codify informal rights of private farms as legal entities:
 - o Currently private farmers receive their lease rights from local *hakim*.
 - o Intend to permit right of private farms to rent from *shirkats*.
 - o Examining developing mortgage mechanism for land rights.
- Provide more opportunities for producers rather than processors and services sectors;
 - o Producer will dictate to whom he will sell his products and at what prices.
 - o Government is developing mechanisms to implement this approach.
- Reform of cotton quotas to farmer determined production:
 - o Farmer establishes his own quota for cotton production for which he receives inputs at subsidized rates for 50 percent of quota.
 - Remaining inputs to be purchased on the market through funds obtained by mortgaging land rights.
 - All input supply companies will open branches in each *raion*.

Other major government initiatives include liquidating and distributing failing farms and establishment of WUAs.

• Government intends to abolish and privatize 177 failing and non-profitable collective farms over several raions in Syr Darya and Djizak:

- o A 17 member committee for each shirkat will preside over the devolution of the land in parcels according to the land's natural contours.
- Committee comprised of *hakim* or representative, farm manager, farm accountant, farm workers.
- o Six to seven applications are generally received for each land parcel.
- The committee will consider all applications meeting minimum requirements—experience in farming, own or access to a tractor, and no criminal record.
- All land assessed for soil fertility.
- o Irrigation system on land separated value.
- o Land value distributed to farmers according to soil fertility and irrigation network.
- o Land distribution process to be completed in 2 ½ months.
- o Committee dissolves as soon as all land is distributed.
- All farm assets will be sold to pay outstanding debts of collective farm being distributed—cattle, buildings, machinery, etc.
- Water user associations to be established for all newly privatized farms:
 - New Water Code based on basin principles to be adopted by Parliament by 1st quarter of 2004, now being reviewed by the Minister of Justice.
 - o Farmers now allowed to join associations under the Civil Code.
 - Associations will be established in preparation for the new law.

Recommendations for USAID

- Extension services for WUAs in developing organization, helping directors and officers to understand their authorities and responsibilities
- Assistance to farmers to understand their legal rights with respect to their newly
 privatized farms, particularly those farms in Syr Darya and Djizak, and to assist them in
 protecting their rights

Water Resource Management Meetings

Abdulaev Shavkat, Water Resources Economist, Ministry of Finance

Key points:

- Interstate Coordination Water Commission (ICWC) for CAR issues limits for Uzbekistan shares of water and they go down the hierarchy. Then it may be corrected.
- Fines for taking more water than limit will be gradually increased.
- New law being considered for adoption next year.
- Serious consideration to reorganization and liquidation of *raivodhozes*; they would merge into the new organization Integrated Water Resource Management (IWRM) basin principle
- Maybe price for water will be initiated, but only gradually raised.
- Too much water is wasted in winter going as drainage water to Arnasai depression—25 to 30 km3!
- Flooding after construction of irrigation system and Chardara reservoir in Kazakhstan.

Ibraim Kurbanov, WUA specialist, Head of Division

Key points:

- Provided statistics on WUAs, irrigation canals, drains.
- There is a need to accelerate WUA establishment based on Presidential decree of March 24, 2003; the government would like to have over 250 WUAs in the country by 2005.
- WUAs need systematic training so they can operate and prepare yearly plan of cropping, irrigation and other works.
- WUAs should be allowed to obtain a loan and enter into contract with private enterprise.
- WUAs need measuring devices to better measure water within the WUA territory and prepare themselves for time when water delivery charges will be imposed.

• Current taxes are too high; *hakims* complicate the situation.

IWMI Fergana Project

Mehmood ul Hasssan, Sociologist Iskandar Abdulaev, Water Engineer

Key points:

- The establishment of WUAs is a slow process, especially if it donor-imposed, ends up only on paper and *shirkats* operate like former *kolkhozes* (tail-enders do not get water).
- When the government "forms" WUAs, it is top-down order to local government.
- It is a good strategy to engage a local NGO in promotional work and training.
- Conflicts with water use of household plots.
- Water rights for those farming at the tail-end of the water system requires more participation by these farmers; results so far have not led to ownership by farmers/water users of the on-farm water systems.
- IWMI together with SIC ICWC specialists have obtained regional experience with farmers mobilization (SMID) is working in three pilot areas; one of them in Uzbekistan in Sogd *oblast* on Gula Kandoz canal.
- SIC/ IWI and local water managers have prepared brochures on steps for farmers' mobilization and WUAs establishment and will distribute them widely and translate them into the regional languages.
- The FV project will pilot IWWRM, and establish canal councils to lay a base for the hydrographic principle.
- Also in Karakalpakistan is one pilot WUA different from NRMP WUA.
- To promote WUA establishment countrywide the local NGOs, for example, Suvch, can be utilized, as they have been going through training on WUAs.
- WUAs do need a start-up capital and communication.

TIIAME – Irrigation and Mechanization Institute

Abdulhakim Salbiddinov, Dean of Rural Potable Water & Environment

- USAID funded a two-year exchange program with universities in Washington, Idaho, and Colorado. Excellent value in his opinion; exchanged scholars and research staff—six Uzbeks and six Americans.
- Hopes to build a school for International Natural Resource Management.
- US State Dept initiated proposal in December 2002 for three-year water environment and resource management analysis; five departments (soil, chemistry, water resources, engineering, social science and sociology).
- In terms of WUAs—it is possible to build a program on what USAID has started. Hopes to use the hydroinformatic center USAID/NRMP more for systematic training of students.
- Would like to build good water /irrigation laboratory system for WUAs; space needs to be evaluated and refurbished; also big lab equipment there for water distribution (Case equipment, land leveling).
- Also would like to have a conference hall, and distance learning facility.
- English language course in the field important for consultation with foreign experts.
- Four good workshops of the NRMP/USAID project (economic analysis, on-farm water management, farm management, environmental impact assessment) appreciated; also US State department-funded workshop on field survey methods.
- USAID also funds water conservation technology under the international seed research organization for the region

German Consulting Company - DHV

Ben Roelofsen, Institutional Specialist Gert Uitenboogaart, DHV, Institutional Specialist

Key points:

- Preparing feasibility study for Amuzhang Canal (attached to 100,000 ha of land) for ADB.
- Project has three components of support to farm restructuring; now *shirkats*, but by 2008 it all should be privatized, land certificates etc.

- 10,000 ha in five areas as pilots (wheat and cotton): infrastructure development, WUAs development, machinery support, extension services; ICARDA doing farm technology, allowing second crop after wheat
- Three WUAs exist; one pilot area of two *shirkats*; farmers association established of *dehkan* and private farmers.
- Allowing short-term credit; water charges definitely will be introduced.
- Preparing recommendations for water management toward IWRM, basin WO (President's Decree).
- Number of donor/IFI projects exist, each with their own recipe for what needs to be done.
- Household plots need to be accounted for water use.

Natural Resource Management Project, (NMRP)

Azim Nazirov

Key points:

- Model for basin river management—Zaravshan RB
- Rehabilitation, reconstruction, heavy vehicles
- Importance of computerized data base
- Training facility establishment
- Policies and public outreach important.

B3. Recommendations to the Mission

The scope of work states that the contractors are to present opportunities (if any) for increasing assistance to the sector that may add value to the activities already being implemented by the offices of EW and EF. This section provides the consultants' recommendations for creating synergies among activities already being implemented as well as recommendations for new activities.

B3a. General integrated agriculture and water resource development model

This section of the report describes a generalized integrated model that could be implemented in different locations within the four CAR countries. Country-specific recommendations are made under section B3b. The consultants advise USAID designers to consider all elements of the generalized model as they assess the potential of the approach in specific locations.

The consultants recommend that USAID consider designing an integrated agriculture and water resource development activity adapted to local conditions within Uzbekistan. We use the term integrated from two perspectives: 1) the integration of value-chain participants (production, processing, marketing, allied industries, and market intermediaries) into a systems approach; and 2) the integration of mutually beneficial donor funded activities into a targeted geographic area to capture potential synergies among existing donor projects.

Within a geographic area the integrated approach would focus existing resources in pilot hydrographic units based on proximity to existing donor resources. This activity would also focus on agro-industries in the water unit such as a fruit and vegetable or cotton industry. Why target enterprises within a hydrographic unit? There are a number of reasons, notably, enterprises in a hydrographic unit: 1) share similar agro-climatic conditions, 2) are part of a common and structured community, 3) share similar constraints and opportunities for growth, 4) have a common enabling/regulatory environment, 5) can provide a more effective water management approach, and 6) enhance the ability to foster necessary cooperation and trust.

The rationale for an integrated approach is based on the need to: 1) facilitate transition from Soviet planned agriculture to market-oriented system, 2) focus on land issues because many agricultural development issues revolve around land rights, ownership, use, including the ability to buy sell and mortgage land, 3) mediate, if not resolve, land tenure and water management issues, 4) recognize sustainable agricultural development including production, processing, finance, and marketing activities, and 5) create synergies among donor projects by focusing diversified resources on common problems.

The primary goal of this approach would be to demonstrate to the GOU how to achieve sustainable growth, through increased efficiency, in agricultural production, processing, and marketing enterprises and the networks in which they operate. Secondary to this goal, the approach will help: 1) reduce poverty, 2) manage natural resources, 3) contribute to national food security objectives, 4) ensure increased revenues for agricultural producers and rural citizens, and 5) build private/public partnerships, sustainable enterprise, and linkages among participating beneficiaries. These goals are consistent with government strategies and thus their willingness to support targeted pilot programs.

Critical issues

The primary criteria for the selection of a targeted geographic area (hydrographic unit), is the presence of significant donor activity. Implement where resources are available and strive to create synergies among existing projects.

Caution. The consultants are not suggesting that USAID and other donor projects integrate their entire work plans to focus on this single geographic or hydrographic unit. We recognize that that would be impractical, if not impossible. What we are suggesting, however, is that the individual projects can dedicate a small portion of their expertise and resources to collaborate in the development of the integrated approach in the target area. For example, the LARC project has 18 offices in Kyrgyzstan, so let us suggest that they locate one office in the target area. Likewise, GTZ conducts agronomic training for farmers throughout Osh and other regions. They will be requested to implement a number of their well developed training modules in the target area. Also, IFDC can implement one demonstration field; MASHAV can implement one drip irrigation activity, etc. The consultants believe that limited, agreed upon, and targeted collaboration is possible within a defined geographic area and will produce the synergies expected to the mutual benefit of all participants.

Coordination and management. To be effective, USAID should designate a senior coordinator—a "czar"—to manage the recommended integrated activity. The "czar" should: 1) have extensive business development experience, 2) be able to work independently from any one project, 3) be mandated to liaise with projects, donors and officials, 4) be responsible for developing donor project "integration strategy," 5) have the authority to negotiate individual MOUs with all pertinent projects, 6) be responsible for monitoring and evaluating impact, 7) facilitate intercountry linkages, 8) be tasked with the collection donor project data on needed policy reform that can be used to foster agro-industrial growth, and 9) be responsible for the dissemination policy reform data and memoranda to interested trade associations and business groups who are able to advocate for policy reform.

Approach

The Integrated Agriculture and Water Resource Development Activity could be organized into the following four components that correspond with the components of existing donor projects, such as the Pragma EDP project:

- A: Agro-industry Strategy Development and Policy Reform
- B: Association and/or member organization development
- C: Business Advisory Services
- D: Business and Market Linkages

Component A: Agro-industry Strategy Development and Policy Reform

This component would respond to two important needs: 1) agro-industries lack comprehensive strategies for their own development, and 2) agro-industry entrepreneurs can and should lead policy reform efforts.

- Agro-industry strategy development: The objective of an agro-industry strategy development would be to bring entrepreneurs together in order to develop agro-industry strategies, where strategies define objectives, constraints, and resource requirements and inform specific action plans. These strategies would be used to orient TA to focus on opportunities and constraint mitigation. Recommended agro-industry strategy development tasks include: 1) The formation of an agro-industry competitiveness council within the targeted geographic area, where the council members would include agro-industry leaders, traders, academic specialists, and public sector representatives. 2) assist the council in the development of an agro-industry strategy, 3) formation of subtopic working groups, 4) assist the working groups in the development of action plans.
- Policy reform: The objective of the policy reform activity would be to condition the enabling environment in which these enterprises operate. This would be accomplished by: identifying and prioritizing policy constraints throughout value chain (coordinate information sharing); utilizing agro-industry council's local knowledge and influence to promote policy reform; and by collaborating with associations and NGO's to advocate for reform. Recommended policy reform tasks would include: 1) assist the agro-industry council in policy formation and advocacy, 2) prioritize and target constraints, 3) develop joint policy memoranda, 4) conduct private/public dialogue sessions, 5) facilitate mediation and arbitration activities, 6) land and water user rights, 7) implement awareness campaigns, and 8) collaborate with commercial law and other reform related projects.

Component B: Association and/or Member Organization Development

The objective of an association development component would be to encourage entrepreneurs to form effective member organizations in order to collaborate on 1) joint procurement and marketing mechanisms, 2) organized information diffusion, 3) recurrent training and capacity building, and 4) increase the market orientation of members and democratic processes.

There are different legal forms of member organizations and consideration should be given, depending on resources available in the targeted area. The fundamental question is to focus on a traditional association model or a corporate structure such as the IFC model.

Recommend association tasks include: 1) organization, registration, and governance, and 2) management, agronomic, and business training.

The IFC/Khujand – Farmer ownership model has unique features that include: 1) multi-*raion* representation, 2) mobilized local "champion" entrepreneurs, 3) local and external ownership, 4)

strong administration, governance, and accountability, 5) strict business criteria for membership, 6) multi agro-industry involvement (cotton +), 7) significant internal financing mechanisms, and 8) joint input supply and marketing activities.

Component C: Business Advisory Services

The objective of the business advisory services is to increase business capabilities of producers, processors, and market intermediaries. The following needs have been identified for each of these three groups:

- Producers (land users) have limited or no agronomic or animal husbandry education, resource management training, market knowledge, or business skills
- Processors are reliant on old technologies and methods, are not market-oriented, unable to access credit, and they often collude with government
- Market intermediaries provide limited services.

Recommended tasks that focus on producer needs include: 1) technical advice (agronomic, livestock, water management, etc), 2) access to inputs and finance, 3) arbitration and mediation services, 4) appropriate technology advice and access, 5) land and water use rights education, 6) land registration support, 7) land and water dispute resolution, 8) business registration, 9) accounting and bookkeeping training, 10) tax advisory services, 11) water conservation and operations methods, and 12) appropriate irrigation technology. These services could be delivered through associations and/or member organizations.

Recommended tasks that focus on processor needs: 1) business plans (conform to industry strategy), 2) accounting/bookkeeping, 3) quality management, 4) sourcing raw materials and contract production, 5) feasibility analysis, 6) access to finance, 7) advice and access to appropriate technology, 8) corporate registration.

Recommended tasks that focus on market intermediary needs: 1) contracting, 2) transportation cost analysis, 3) cash flow analysis, 4) marketing and promotion.

Component D: Business and Market Linkages

The objective of the business and market linkages component is to facilitate linkages among participants in agro-industry value chain, such as producer-processor linkages, finance linkages, market linkages, and public-private linkages.

Recommended tasks for increasing producer-processor linkages include: 1) production contracting, 2) quality incentives, 3) production financing linked to production contracts, and 4) on-farm quality control training.

The objective of the finance linkages task would be to facilitate financial linkages between borrowers and creditors, in that there is a need to provide a menu of financial options depending on country's formal financial climate.

Recommended tasks for increasing finance linkages include: 1) develop and evaluate credit options, 2) supplier credit, 3) processor forward and delivery contract credit, 4) foreign importer or cross border credit, 5) bank or micro-finance credit, 5) marketing of project support with creditors to borrowers in order to develop trust, 6) borrower training on financing approaches, 7) loan officer training on agricultural risk analysis, producer/processor cash flows, taxes, and evaluation of borrower character, 8) loan officer training on agricultural loan workout, 9) develop producer/processor credit bureau in associations, 10) develop association based peer pressure on debt repayment, 11) arrange for processor payment to producer through banks, and 12) develop inventory and warehouse receipts credit.

Recommended tasks for increasing market linkages include: 1) export market intelligence, 2) domestic market intelligence, 3) commodity profitability assessments, and 4) knowledge management of data from all projects for policy formation

Recommended tasks for increasing public-private linkages include: 1) need to incorporate local officials and academic professionals in the development process, 2) create mutually beneficial goals and objectives, 3) obtain political will for reform, 4) create sustainability mechanisms, 4) support reform leadership.

B3b. Recommendations for creating existing project synergies in Uzbekistan

In this section the consultants present their recommendations to USAID for activities in Uzbekistan.

The main theme of these recommendations is to focus and leverage resources—focus existing USAID project resources in selected geographic areas and in a comprehensive manner; and leverage other donor resources to add value to USAID projects.

Recommendations for Uzbekistan:

Recommendation 1: Fergana Valley - Integrated agriculture and water resource

development activity

Recommendation 2: Application of the IFC farmer ownership model

Recommendation 3: Establish legal advisory centers

Recommendation 4: Provide training/skill development in agricultural finance

Recommendation 5: Provide independent policy review support for credit unions and

microfinance institutions

Recommendation 6: Introduce USDA type mediation services

Recommendation 1: Fergana Valley - Integrated agriculture and water resource development activity

Design and implement an integrated agriculture and water resource activity in a target Ferghana Valley hydrographic unit. Selection of the hydrographic unit should be based on existing donor presence, scope of their work activity, and commitment to coordination efforts.

Considerating ways to utilize existing USAID resources, such as EDP and TIP, to enhance collaboration with other donor projects would be highly recommended.

Critical issues:

There are a number of inter-related critical issues that need to be considered if USAID undertakes project design work for the Fergana Valley of Uzbekistan that center on the ability of producer-processor-market intermediaries to develop mutually beneficial business relationships. Producers' extremely limited access to seasonal working capital constrains their production capacity and efficiency and their ability to meet contracts. These constraints are further compounded by late payment schemes offered by purchasers of finished products. Markets are underdeveloped and the skills required to develop existing markets are not present to any degree.

Approach:

See generalized approach above.

Time requirements:

This activity would run concurrently with the Pragma EDP/TIP funding, which is assumed to be two to four years.

Funding needed to reach program goals:

Funding would be for a senior business development "czar" and associated working budget. The yearly cost is estimated to be \$350,000 per year.

Key partner organizations:

Fruit and vegetable processors

Fruit and vegetable producer and processor associations

Water district managers – public/private dialogue

Water user associations – water resource management and cost recovery

Local NGO to provide producer training

Mercy Corp – CAIP and PIC - community development activities focused on economic development pilots with small-scale fruit and vegetable processors.

ACDI/VOCA – targeted farmer-to-farmer activities

Recommendation 2: Introduce the IFC Farmer Ownership model in the Fergana/Andegon area.

Implementation of this recommendation would add significant value to the integrated approach in Fergana/Andegon.

Critical issues:

It is the understanding of the consultants that the IFC model could be implemented in Uzbekistan as a legal for-profit entity. However, the lending function of the new entity would apparently have to be conducted under a subsidiary operating within the new credit union legal framework.

The issue of commodity focus for the ownership model should be investigated further in order to understand the state's willingness to allow private cotton production and marketing, along with fruit and vegetables and other financial attractive commodities.

Rationale:

The consultants were impressed with the manner in which the IFC Farmer Ownership Model in Tajikistan is attempting to resolve an array of constraints on agricultural production, processing, and marketing for its membership. The replication of this model in Uzbekistan should be evaluated by USAID. The ability to utilize an organization for the provision of technical assistance to improve production efficiency, resolve linkages with processors, and support marketing initiatives for its members is a fine example of an integrated approach to agricultural development.

Approach:

The implementation of this recommendation could be through a USAID design and perform type contract, where the diagnostic and due diligence work would be part of the first phase of project implementation. An alternate approach would be for IFC to be the lead agency for implementation with an agreement with USAID to implement the farmer ownership model in collaboration with the integrated approach defined above.

Time requirements:

This would require at least a three-year commitment

Funding needed to reach program goals:

\$250,000 for an equity position (to be matched by IFC or other donor) SEAF would be one mechanism for the equity investment Three year technical assistance estimated at \$1.0 million per year

Key partner organizations:

IFC and local producers, processors, and marketers

Recommendation 3: Establish legal advisory centers

The consultants believe that the legal advisory services project implemented in Kyrgyzstan by Helvetas-LARC project, with USAID support, provides desperately needed legal advice to rural farmers. This successful model should be expanded in Uzbekistan by including land and water user rights education as well. These advisory centers would offer an effective complement to the business advisory services already supported by USAID.

Expand or apply the Kyrgyzstan LARC program to Uzbekistan to: 1) facilitate the provision of legal advisory services to local farmers regarding land and water rights, state order, inputs contracts, freedom of production decision, right to market produce, grower delivery contracts with processors or associations, etc., 2) provide explanation and publicity of land rights of all newly privatized farms, 3) provide mediation services to local farmers regarding national and local government, and 4) facilitate preparation of grower and deliver contracts for promoting private vertical integration of production and processing.

Recommendation 4: Provide training/skill development in agricultural finance

Banker training is primarily intended in Uzbekistan for credit union and MFI loan officers having a substantial agricultural customer base. Banker training should be offered to all Uzbek banks, particularly the smaller banks, to enhance their skills for making agricultural loans as these banks complete the transformation to more commercial enterprises occurs. Borrower training is suggested for private farmers, small and medium agribusinesses, and other entrepreneurs active in the agricultural sector.

- Agricultural production credit and agro-industrial and food processing cash flow and credit analysis training for commercial bank officers of banks interested in learning how to finance the sector or improving their performance
- Borrower training of promising agro-industrial businesses (food processors, wholesalers, processing and marketing associations of producers)
- Technical assistance in seeking non-bank credit for agricultural production—supplier credit, processor credit, trade credit
- Work with bankers and processors to develop a working capital financing formula that gives processors needed financing and bankers secure comfort of repayment or collection upon default.

Recommendation 5: Provide independent policy review support for credit unions and microfinance institutions

If USAID adopts the integrated model recommended above and places a full-time "czar" to coordinate implementation, then one of the most important policy review tasks of this person relates to monitoring Uzbek finance policies to prevent a likely attempt to take over or control the credit union and MFI market created by donors.

There are several reasons for this recommendation: 1) credit unions have developed rapidly and generated strong public confidence in placing some savings in credit unions and taking loans that are agricultural and SME oriented, 2) government has liquidity problems and may seek to seek deposits aggressively, 3) credit unions must clear liquidity through an Uzbek commercial bank, and 4) Uzbek government is interested in developing state-owned and controlled MFI capability as an alternative.

USAID should monitor government actions and policies to make sure that government does not interfere in the free market commerce developing with credit unions and MFIs by: 1) advocating for permanent legislative credit union clearing, 2) establishing an emergency liquidity fund for credit unions should the government attempt to shut down business by withholding disbursements by commercial banks, 3) advocating for transparency for all CBU regulations governing credit unions, MFIs, and commercial banks, 5) monitoring MFIs to make sure they continue to move toward sustainability, develop a diversified portfolio, and have access to funds to expand their portfolio.

Recommendation 6: Introduce USDA-type mediation services

USDA has an established mediation program for providing mediation, the training of mediators, and trainers of trainers to develop a cadre of professionals to serve rural mediation needs. These services cover the complexities of USDA, EPA and other government policies, regulations, permits, licenses, and regulatory control, such as government agricultural loan programs, water user association disputes. For example, USDA mediators have successfully mediated very complex water management issues, such as mediation in Arizona where several parties were in dispute over water management including Indian nations; state, city, county and town governments, federal and state water project authorities, major agricultural users, and industrial users of water.

B3c. Regional issues

The consultants recommend that USAID consider the potential benefits of developing a Ferghana Valley approach that further integrates Kyrgyz (Osh), Uzbek (Ferghana), and Tajik (Khujand/Isfara) activities.

The EDP offices in Osh, Ferghana, and Khujand offer a unique opportunity to advocate enhanced regional trade. EDP has already implemented joint tri-country trade workshops focused on increased trade amongst the three countries. These initiatives should be enhanced with participation with other donor projects to create desired synergies. The proposed Fergana Valley

seal of quality is an example of the type of regional initiative that could facilitate regional trade and further market integration.

Funding needed to reach program goals:

Funding for this regional activity would be drawn primarily from existing EDP and TIP budgets; however, a review of existing budget allocations should be made in order to ensure that sufficient funding for this targeted activity is available. If funds are deemed insufficient then this line item should be increased in order to accommodate the proposed activities. Joint regional activities would be defined in the EDP and TIP work plans.

ANNEX A: UZBEKISTAN COUNTRY PROFILE

Source: Library of Congress

Uzbekistan, the most populous and arguably the most powerful state in Central Asia, has a long and magnificent history. Located between two rivers—the Amu Darya to the north and the Syrdariya to the south—the region that is modern Uzbekistan has been one of the cradles of world civilization. Some of the world's oldest sedentary populations and several of its most ancient cities are located here. Beginning at the height of the Roman Empire, the region was a crossroads on the transcontinental trade routes between China and the West. Subject to constant invasion and to in-migration of nomads from the great grasslands to the north, Uzbekistan became a region of legendary conquests where various peoples with different traditions have consistently had to live together.

Population

The population of Uzbekistan, estimated in 1994 at about 23 million, is the largest of the Central Asian republics, comprising more than 40 percent of their total population. Growing at a rapid rate, the population is split by ethnic and regional differences. The Russian component of the population shrank steadily in the years after independence.

Relative to the former Soviet Union as a whole, Uzbekistan is still largely rural: roughly 60 percent of Uzbekistan's population lives in rural areas. The capital city is Tashkent, whose 1990 population was estimated at about 2.1 million people. Other major cities are Samarqand (population 366,000), Namangan (308,000), Andijon (293,000), Bukhoro (224,000), Farghona (200,000), and Quqon (182,000).

The population of Uzbekistan is exceedingly young. In the early 1990s, about half the population was under nineteen years of age. Experts expected this demographic trend to continue for some time because Uzbekistan's population growth rate has been quite high for the past century: on the eve of the collapse of the Soviet Union, only Tajikistan had a higher growth rate among the Soviet republics. Between 1897 and 1991, the population of the region that is now Uzbekistan more than quintupled, while the population of the entire territory of the former Soviet Union had not quite doubled. In 1991 the natural rate of population increase (the birth rate minus the death rate) in Uzbekistan was 28.3 per 1,000—more than four times that of the Soviet Union as a whole, and an increase from ten years earlier.

These characteristics are especially pronounced in the Autonomous Republic of Karakalpakstan (the Uzbek form for which is Qoroqalpoghiston Respublikasi), Uzbekistan's westernmost region. In 1936, as part of Stalin's nationality policy, the Karakalpaks (a Turkic Muslim group whose name literally means "black hat") were given their own territory in western Uzbekistan, which was declared an autonomous Soviet socialist republic to define its ethnic differences while maintaining it within the republic of Uzbekistan. In 1992 Karakalpakstan received republic status within independent Uzbekistan. Since that time, the central government in Tashkent has maintained pressure and tight economic ties that have kept the republic from exerting full independence.

Today, the population of Karakalpakstan is about 1.3 million people who live on a territory of roughly 168,000 square kilometers. Located in the fertile lower reaches of the Amu Darya where the river empties into the Aral Sea, Karakalpakstan has a long history of irrigation agriculture. Currently, however, the shrinking of the Aral Sea has made Karakalpakstan one of the poorest and most environmentally devastated parts of Uzbekistan, if not the entire former Soviet Union. Because the population of that region is much younger than the national average (according to the 1989 census, nearly three-quarters of the population was younger than twenty-nine years), the rate of population growth is quite high. In 1991 the rate of natural growth in Karakalpakstan was reportedly more than thirty births per 1,000 and slightly higher in the republic's rural areas. Karakalpakstan is also more rural than Uzbekistan as a whole, with some of its administrative regions (rayony; sing., rayon) having only villages and no urban centers--an unusual situation in a former Soviet republic.

The growth of Uzbekistan's population was in some part due to in-migration from other parts of the former Soviet Union. Several waves of Russian and Slavic in-migrants arrived at various times in response to the industrialization of Uzbekistan in the early part of the Soviet period, following the evacuations of European Russia during World War II, and in the late 1960s to help reconstruct Tashkent after the 1966 earthquake. At various other times, non-Uzbeks arrived simply to take advantage of opportunities they perceived in Central Asia. Recently, however, Uzbekistan has begun to witness a net emigration of its European population. This is especially true of Russians, who have faced increased discrimination and uncertainty since 1991 and seek a more secure environment in Russia. Because most of Uzbekistan's population growth has been attributable to high rates of natural increase, the emigration of Europeans is expected to have little impact on the overall size and demographic structure of Uzbekistan's population. Demographers project that the population, currently growing at about 2.5 percent per year, will increase by 500,000 to 600,000 annually between the mid-1990s and the year 2010. Thus, by the year 2005 at least 30 million people will live in Uzbekistan.

High growth rates are expected to give rise to increasingly sharp population pressures that will exceed those experienced by most other former Soviet republics. Indeed, five of the eight most densely populated provinces of the former Soviet Union--Andijon, Farghona, Tashkent, Namangan, and Khorazm--are located in Uzbekistan, and populations continue to grow rapidly in all five. In 1993 the average population density of Uzbekistan was about 48.5 inhabitants per square kilometer, compared with a ratio of fewer than six inhabitants per square kilometer in neighboring Kazakstan. The distribution of arable land in 1989 was estimated at only 0.15 hectares per person. In the early 1990s, Uzbekistan's population growth had an increasingly negative impact on the environment, on the economy, and on the potential for increased ethnic tension.

Population pressures have exacerbated ethnic tensions. In 1995 about 71 percent of Uzbekistan's population was Uzbek. The chief minority groups were Russians (slightly more than 8 percent), Tajiks (officially almost 5 percent, but believed to be much higher), Kazaks (about 4 percent), Tatars (about 2.5 percent), and Karakalpaks (slightly more than 2 percent). In the mid-1990s, Uzbekistan was becoming increasingly homogeneous, as the outflow of Russians and other minorities continues to increase and as Uzbeks return from other parts of the former Soviet

Union. According to unofficial data, between 1985 and 1991 the number of nonindigenous individuals in Uzbekistan declined from 2.4 to 1.6 million.

The increase in the indigenous population and the emigration of Europeans have increased the self-confidence and often the self-assertiveness of indigenous Uzbeks, as well as the sense of vulnerability among the Russians in Uzbekistan. The Russian population, as former "colonizers," was reluctant to learn the local language or to adapt to local control in the post-Soviet era. In early 1992, public opinion surveys suggested that most Russians in Uzbekistan felt more insecure and fearful than they had before Uzbek independence.

The irony of this ethnic situation is that many of these Central Asian ethnic groups in Uzbekistan were artificially created and delineated by Soviet fiat in the first place. Before the Bolshevik Revolution, there was little sense of an Uzbek nationhood as such; instead, life was organized around the tribe or clan. Until the twentieth century, the population of what is today Uzbekistan was ruled by the various khans who had conquered the region in the sixteenth century.

But Soviet rule, and the creation of the Uzbek Soviet Socialist Republic in October 1924, ultimately created and solidified a new kind of Uzbek identity. At the same time, the Soviet policy of cutting across existing ethnic and linguistic lines in the region to create Uzbekistan and the other new republics also sowed tension and strife among the Central Asian groups that inhabited the region. In particular, the territory of Uzbekistan was drawn to include the two main Tajik cultural centers, Bukhoro and Samarqand, as well as parts of the Fergana Valley to which other ethnic groups could lay claim. This readjustment of ethnic politics caused animosity and territorial claims among Uzbeks, Tajiks, Kyrgyz, and others through much of the Soviet era, but conflicts grew especially sharp after the collapse of central Soviet rule.

The stresses of the Soviet period were present among Uzbekistan's ethnic groups in economic, political, and social spheres. An outbreak of violence in the Fergana Valley between Uzbeks and Meskhetian Turks in June 1989 claimed about 100 lives. That conflict was followed by similar outbreaks of violence in other parts of the Fergana Valley and elsewhere. The civil conflict in neighboring Tajikistan, which also involves ethnic hostilities, has been perceived in Uzbekistan (and presented by the Uzbekistani government) as an external threat that could provoke further ethnic conflict within Uzbekistan. Thousands of Uzbeks living in Tajikistan have fled the civil war there and migrated back to Uzbekistan, for example, just as tens of thousands of Russians and other Slavs have left Uzbekistan for northern Kazakstan or Russia. Crimean Tatars, deported to Uzbekistan at the end of World War II, are migrating out of Uzbekistan to return to the Crimea.

Two ethnic schisms may play an important role in the future of Uzbekistan. The first is the potential interaction of the remaining Russians with the Uzbek majority. Historically, this relationship has been based on fear, colonial dominance, and a vast difference in values and norms between the two populations. The second schism is among the Central Asians themselves. The results of a 1993 public opinion survey suggest that even at a personal level, the various Central Asian and Muslim communities often display as much wariness and animosity toward each other as they do toward the Russians in their midst. When asked, for example, whom they would not like to have as a son- or daughter-in-law, the proportion of Uzbek respondents naming

Kyrgyz and Kazaks as undesirable was about the same as the proportion that named Russians. (About 10 percent of the Uzbeks said they would like to have a Russian son- or daughter-in-law.) And the same patterns were evident when respondents were asked about preferred nationalities among their neighbors and colleagues at work. Reports described an official Uzbekistani government policy of discrimination against the Tajik minority.

Other social factors also define the identities and loyalties of individuals in Uzbekistan and influence their behavior. Often regional and clan identities play an important role that supersedes specifically ethnic identification. In the struggle for political control or access to economic resources, for example, regional alliances often prevail over ethnic identities. A United States expert has identified five regions--the Tashkent region, the Fergana Valley, Samarqand and Bukhoro, the northwest territories, and the southern region--that have played the role of a power base for individuals who rose to the position of first secretary of the Communist Party of Uzbekistan. Often clan-based, these regional allegiances remain important in both the politics and the social structure of post-Soviet Uzbekistan.

Physical Environment

With an area of 447,000 square kilometers (approximately the size of France), Uzbekistan stretches 1,425 kilometers from west to east and 930 kilometers from north to south. Bordering Turkmenistan to the southwest, Kazakstan to the north, and Tajikistan and Kyrgyzstan to the south and east, Uzbekistan is not only one of the larger Central Asian states but also the only Central Asian state to border all of the other four. Uzbekistan also shares a short border with Afghanistan to the south.

Topography and Drainage

The physical environment of Uzbekistan is diverse, ranging from the flat, desert topography that comprises almost 80 percent of the country's territory to mountain peaks in the east reaching about 4,500 meters above sea level. The southeastern portion of Uzbekistan is characterized by the foothills of the Tian Shan mountains, which rise higher in neighboring Kyrgyzstan and Tajikistan and form a natural border between Central Asia and China. The vast Qizilqum (Turkic for "red sand"--Russian spelling Kyzyl Kum) Desert, shared with southern Kazakstan, dominates the northern lowland portion of Uzbekistan. The most fertile part of Uzbekistan, the Fergana Valley, is an area of about 21,440 square kilometers directly east of the Qizilqum and surrounded by mountain ranges to the north, south, and east. The western end of the valley is defined by the course of the Syrdariya, which runs across the northeastern sector of Uzbekistan from southern Kazakstan into the Qizilqum. Although the Fergana Valley receives just 100 to 300 millimeters of rainfall per year, only small patches of desert remain in the center and along ridges on the periphery of the valley.

Water resources, which are unevenly distributed, are in short supply in most of Uzbekistan. The vast plains that occupy two-thirds of Uzbekistan's territory have little water, and there are few lakes. The two largest rivers feeding Uzbekistan are the Amu Darya and the Syrdariya, which originate in the mountains of Tajikistan and Kyrgyzstan, respectively. These rivers form the two main river basins of Central Asia; they are used primarily for irrigation, and several artificial canals have been built to expand the supply of arable land in the Fergana Valley and elsewhere.

Another important feature of Uzbekistan's physical environment is the significant seismic activity that dominates much of the country. Indeed, much of Uzbekistan's capital city, Tashkent, was destroyed in a major earthquake in 1966, and other earthquakes have caused significant damage before and since the Tashkent disaster. The mountain areas are especially prone to earthquakes.

Climate

Uzbekistan's climate is classified as continental, with hot summers and cool winters. Summer temperatures often surpass 40°C; winter temperatures average about -23°C, but may fall as low as -40°C. Most of the country also is quite arid, with average annual rainfall amounting to between 100 and 200 millimeters and occurring mostly in winter and spring. Between July and September, little precipitation falls, essentially stopping the growth of vegetation during that period.

Environmental Problems

Despite Uzbekistan's rich and varied natural environment, decades of environmental neglect in the Soviet Union have combined with skewed economic policies in the Soviet south to make Uzbekistan one of the gravest of the CIS's many environmental crises. The heavy use of agrochemicals, diversion of huge amounts of irrigation water from the two rivers that feed the region, and the chronic lack of water treatment plants are among the factors that have caused health and environmental problems on an enormous scale.

Environmental devastation in Uzbekistan is best exemplified by the catastrophe of the Aral Sea. Because of diversion of the Amu Darya and Syrdariya for cotton cultivation and other purposes, what once was the world's fourth largest inland sea has shrunk in the past thirty years to only about one-third of its 1960 volume and less than half its 1960 geographical size. The desiccation and salinization of the lake have caused extensive storms of salt and dust from the sea's dried bottom, wreaking havoc on the region's agriculture and ecosystems and on the population's health. Desertification has led to the large-scale loss of plant and animal life, loss of arable land, changed climatic conditions, depleted yields on the cultivated land that remains, and destruction of historical and cultural monuments. Every year, many tons of salts reportedly are carried as far as 800 kilometers away. Regional experts assert that salt and dust storms from the Aral Sea have raised the level of particulate matter in the earth's atmosphere by more than 5 percent, seriously affecting global climate change.

The Aral Sea disaster is only the most visible indicator of environmental decay, however. The Soviet approach to environmental management brought decades of poor water management and lack of water or sewage treatment facilities; inordinately heavy use of pesticides, herbicides, defoliants, and fertilizers in the fields; and construction of industrial enterprises without regard to human or environmental impact. Those policies present enormous environmental challenges throughout Uzbekistan.

Water Pollution

Large-scale use of chemicals for cotton cultivation, inefficient irrigation systems, and poor drainage systems are examples of the conditions that led to a high filtration of salinized and contaminated water back into the soil. Post-Soviet policies have become even more dangerous;

in the early 1990s, the average application of chemical fertilizers and insecticides throughout the Central Asian republics was twenty to twenty-five kilograms per hectare, compared with the former average of three kilograms per hectare for the entire Soviet Union. As a result, the supply of fresh water has received further contaminants. Industrial pollutants also have damaged Uzbekistan's water. In the Amu Darya, concentrations of phenol and oil products have been measured at far above acceptable health standards. In 1989 the minister of health of the Turkmen SSR described the Amu Darya as a sewage ditch for industrial and agricultural waste substances. Experts who monitored the river in 1995 reported even further deterioration.

In the early 1990s, about 60 percent of pollution control funding went to water-related projects, but only about half of cities and about one-quarter of villages have sewers. Communal water systems do not meet health standards; much of the population lacks drinking water systems and must drink water straight from contaminated irrigation ditches, canals, or the Amu Darya itself. According to one report, virtually all the large underground fresh-water supplies in Uzbekistan are polluted by industrial and chemical wastes. An official in Uzbekistan's Ministry of Environment estimated that about half of the country's population lives in regions where the water is severely polluted. The government estimated in 1995 that only 230 of the country's 8,000 industrial enterprises were following pollution control standards.

Society

Population: Approximately 23 million, 1994; growth rate in 1995, 2.5 percent per year; 1993 population density 48.5 persons per square kilometer.

Ethnic Groups: In 1995, Uzbek 71 percent, Russian 8 percent, Tajik 5 percent, Kazak 4 percent, Tatar 2 percent, and Karakalpak 2 percent.

Language: Uzbek designated preferred language, required for citizenship, but Russian in wide official and commercial use, 1995. In 1994, Uzbek first language of 74 percent, Russian of 14 percent, and Tajik of 4 percent.

Religion: Muslim (mostly Sunni) 88 percent, Russian Orthodox 9 percent, about 93,000 Jews. Islam practiced in individualized forms; little political Islam although post-Soviet religious practice greatly increased.

Education and Literacy: Literacy 97 percent, 1989. Program to restructure Soviet-era system hampered by low budget, poor condition of infrastructure, and loss of teachers. Attendance compulsory through grade nine. In 1993, 86 percent of population ages six to sixteen in regular or vocational school. Fifty-three institutions of higher learning active, 1993.

Health: Universal free health care; some private practices and health insurance introduced, early 1990s. Shortages of medicine, equipment, and trained personnel. Health crises, epidemics caused by high pollution levels, especially in Aral Sea region. Infant mortality increased very fast beginning in 1970s.

ANNEX B: DECREE OF THE PRESIDENT OF THE REPUBLIC OF UZBEKISTAN

On the most important directions for deepening reforms in agriculture

In order to further deepen economic reforms in agriculture, improve production relations in rural areas, introduce an organizational structure for managing agricultural production in line with market principles, expand independence of agricultural producers and ensure their effective legal protection:

- 1. To determine the following as the most important directions for changing the form of ownership and improving production relations in rural areas:
 - Development of leasing forms of ownership and practices based on contractual relations in the conditions of irrigated crop production and limited irrigated land;
 - Creation of economic and legal conditions aimed at effective protection of interests of agricultural producer the main production unit in rural areas, by conforming to this goal the activity of procuring, processing enterprises, suppliers of material and technical resources, financial and banking institutions and other servicing organizations;
 - Maintenance of organizational and legal forms of operation by shirkat (cooperative), private and dehkan (household) farms determining as a priority the development of private farms that in the future should become a main agricultural producer.
- 2. To determine the procedure whereas:
- (a) Projected production volumes of seed cotton and grain for the current year are defined for the country as a whole and by regions in accordance with the proposals of the Council of Ministers of the Republic of Karakalpakstan and khokimiyats of provinces based on the summarized information of the contracts signed between agricultural producers and procuring agencies;
- (b) Agricultural producers taking into account their farms specialization and signed contracts make independent decisions on cropping pattern;
- (c) Farms are entitled to use the results of their labor, including production, property, financial and material resources at their choice.

Ministry of Agriculture and Water Resources, Ministry of Economics, Ministry of Justice of the Republic of Uzbekistan within one month to review all regulations and procedures currently in effect based on this Decree.

3. Ministry of Agriculture and Water Resources, Ministry of Economics, Ministry of Finance, Ministry of Justice of the Republic of Uzbekistan, State Committee on Land Resources, Council of Ministers of the Republic of Karakalpakstan and khokimiyats of provinces are to ensure broad development of land-lease relations as the main form of production relations in agriculture. Within one month to submit to the Cabinet of Ministers proposals on implementation of measures aimed at transferring all shirkat and private farms to the lease form of ownership starting from 2004.

- 4. Ministry of Agriculture and Water Resources of the Republic of Uzbekistan, State Committee on Land Resources, Council of Ministers of the Republic of Karakalpakstan and khokimiyats of provinces in the process of establishing and organization of operation of private farms to take into account the following principles:
 - As a rule, private farms are established on the basis of abolished loss-making, ineffective and hopeless *shirkats*.
 - Private farm is established as a legal entity, mainly in the form of private enterprise with the right of its subsequent merger into different types of cooperation.
 - Land plots are allocated to farmers on a contest basis for long-term lease up to fifty years with inheritance right during lease period.
 - Land plots allocated to private farms are deducted from the balance of shirkat farms.
 - Procedure for allocation of land plots for establishing private farms is determined by separate Regulation approved by the Cabinet of Ministers of the Republic of Uzbekistan.
 - Contracts for delivery of agricultural production and supply of inputs and services are signed by private farms directly with procuring, processing and servicing enterprises and organizations.
 - Labor relations between farmers and hired workers, including family members, are based on labor contracts in accordance with labor legislation currently in effect.
- 5. Cabinet of Ministers of the Republic of Uzbekistan jointly with the Council of Ministers of the Republic of Karakalpakstan and khokimiyats of provinces within two months to prepare and approve the following documents:
 - Concept paper for development of private farms for the nearest future with breakdown by
 provinces and districts based on deep analysis of local specifics, availability of
 agricultural land, labor resources and employment perspectives for laid-off shirkat
 workers.
 - Program of comprehensive development of modern market infrastructure in the rural areas for 2003-2005.
- 6. To consider it necessary to seriously review the management system in agricultural production taking into account abolishing distributional functions of the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan and refusal of administrative and command methods of management in agricultural sub-sectors.

The main tasks of the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan are determined as follows:

- Undertaking an unified agricultural policy aimed at modernization and sustainable development of agriculture;
- Improvement and introduction of modern technologies in agriculture;
- Coordination of activities of all agencies and service enterprises that should perform on market based principles and mechanisms
- Water resources management that anticipates the move from administrative-territorial to basin based water management in irrigation systems, and introduction of market principles in the use of irrigation water at all levels.
- 7. To consider expedient to create Councils for addressing the following issues in the management structure of the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan:
 - Development of cotton production
 - Development of wheat production
 - Development and comprehensive processing of fruits, vegetables, grapes and melons;
 - Development of cattle production
 - Rational use of land and water resources, development of irrigation infrastructure and improvement of soil fertility
 - Mechanization and improved application of chemicals in agriculture.

The main tasks of the Councils should be to prepare concrete recommendations on reforming and development of appropriate sub-sectors and efficient use of the potential in agriculture.

Lead experts should be the members of these Councils on a voluntary basis. Chairpersons of the Councils are the members of the management board of the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan.

All recommendations of the Councils should be discussed at the management board meetings of the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan whose decisions are compulsory for implementation.

The functions of working bodies of these Councils should be delegated to the appropriate departments and divisions of the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan.

8. Ministry of Agriculture and Water Resources, Ministry of Justice and Ministry of Economics of the Republic of Uzbekistan jointly with the concerned organizations within one month should prepare and submit for approval to the Cabinet of Ministers the following documents:

- New regulation on the Ministry of Agriculture and Water Resources, its provincial and district departments;
- New sample charter documents for private and shirkat farms.

While preparing the above regulations to foresee expanded independence of agricultural producers, clear distribution of functions and responsibilities of each management and production structure, democratic forms of resolving personnel issues in shirkat farms, elimination of administrative interference into the operation of agricultural producers.

9. Ministry of Agriculture and Water Resources, Ministry of Economics and Ministry of Finance of the Republic of Uzbekistan jointly with the concerned organizations within one month should revise and in agreement with the Ministry of Justice of the Republic of Uzbekistan approve in the established order new sample contracts for delivery of agricultural production, inputs and services.

The following should be included in these contracts:

- Priority status of main agricultural producer in his production relations with procuring, processing, and servicing enterprises
- Clear definition of the rights and responsibilities of the parties
- Definition of procedures and concrete terms for delivery of production, completion of works, provision of services and settlement of payment s under the contracts
- Subordination of the content of contracts to the achievement of the main goal production of main crops seed cotton, grain and others with minimal costs
- Clear definition of the responsibilities of the parties under contract obligations.

To determine that the above contracts should be signed not later one month before the start of agrotechnical activities.

Ministry of Justice of the Republic of Uzbekistan:

- Establish systematic control over observance of approved norms and requirements for signing and executing contracts by all economic entities
- Within one month jointly with the Supreme Court and Supreme Economic Court submit to the Cabinet of Ministers proposals on establishing in the regions of the country a developed system of legal institutions that would ensure proper protection of interest of agricultural producers based on contractual arrangements.
- 10. Ministry of Economics, State Statistics Committee, Ministry of Finance, Ministry of Agriculture and Water Resources, State Tax Committee of the Republic of Uzbekistan within one month to review current system of statistical and financial indicators for assessing performance of agricultural enterprises and based on that to submit proposals for their serious

improvements taking into account reduction of number of indicators and creation of an unified reporting system in line with the requirements of market economy.

Along with that ministries and agencies should not introduce additional forms of reporting at all levels.

- 11. Ministry of Justice jointly with the Ministry of Agriculture and Water Resources, Ministry of Finance, Ministry of Economics of the Republic of Uzbekistan and other concerned ministries and agencies within one month to submit proposals to the Cabinet of Ministers on changes and amendments to current legislation based on this Decree.
- 12. State Advisor to the President of the Republic of Uzbekistan Mr. I. Jurabekov and Deputy Prime Ministers Mr. R. Azimov and Mr. N. Yusupov are responsible to control the implementation of this Decree.

President of the Republic of Uzbekistan Islam Karimov

Tashkent, 24 March 2003

ANNEX C: TYPES OF FARMS IN UZBEKISTAN

World Bank Survey 2001, Rural Enterprise Support project

There are three main types of large farms:

Shirkat farms are primarily converted from former kolkhozy, and occupy 1600-2000 ha. The administration of shirkats bears a suspicious resemblance to that of their kolkhoz progenitors. Each shirkat has a director, agronomist, economist, land surveyor, chief irrigator, chief mechanic, and chief accountant. The latter three have subordinates that help them with the work associated with their specialization: mirabs (irrigation specialists responsible for allocating and delivering water to 100-250 ha of land), tractor drivers and mechanics, and the personnel of the accounting department. The individual contracting units (pudrats) are directly subordinate to the farm director.

The *Shirkat conglomerate* is essentially a converted *sovkhoz*, large production units that were organized in the Soviet period. They are most widespread in areas irrigated during the massive land settlement and irrigation campaigns of the 1960s-1980s. The shirkat conglomerate is comprised of individual *shirkats* of 150-450 ha apiece, which correspond to the "departments" of the former sovkhoz. The *shirkats* contain 10-20 *pudrats*, subordinated to a bash *pudratchi* (literally, "head of the *pudrats*"), who in turn reports to the farm director. The central administration of the *shirkat* conglomerate is the same as in the *shirkat*. *Shirkat* conglomerates contain as much as 5,000 ha of irrigated land apiece.

"Farm conglomerates" converted from sovkhozy are the prevalent form of farm organization. The farms, typically smaller than shirkat conglomerates, are organized into "individual farms." A "head farmer" supervises 5-6 farms and reports to the farm conglomerate director. The central administration is very similar to that of the *shirkats*.

For the sake of convenience, and to avoid confusion with private farmers, "individual farms" in these units are referred to in the remainder of this study as "*pudrats*."

Pudrats and other contracting units

The *shirkat* farmer works within a *pudrat*, a contracting unit based upon production by a family. In the farms surveyed, there are also 12 brigades, the old regimented Soviet form of labor organization, 23 *pudrats* devoted entirely to livestock production, and 23 lease *pudrats*. The latter operate on a leasehold basis with the shirkat, unlike the normal *pudrats*, which do not pay for the land they use.¹⁶

Contracting units are of fairly recent origin. Over 84 percent of the work units surveyed were formed after 1996, and almost 60 percent in 1999 and 2000. Brigades are the oldest work units—75 percent of them date to before 1996, and 17 percent of brigade respondents could not

¹⁶ The introduction of *pudrats* in Uzbekistan is derived from an attempt at agricultural reform made in the Soviet Union in the late 1980s. The experiment brought about little increase in productivity.

remember when the work unit came into existence. Among the districts, the most longstanding work units are in Ellikkala District—only 49 percent of work units surveyed in Ellikkala District were created in the past 5 years—including all but one of the brigades surveyed and all of "independent farms" within conglomerates.

Pudrats are allocated an average of 12.1 ha of land, 10.75 of which is irrigated, with an average of 0.78 workers per hectare.

Pudrats are managed by a leader, typically head of the household, who serves in much the same capacity as the brigadir ("brigade leader") of the Soviet period. Men comprise 83 percent of the leaders of the work units sampled (82 percent of pudrats and a much higher percentage of other units). The average age of pudrat leaders is 38 years. The majority of these respondents have received only a secondary or lower education (56 percent and 5.4 percent, respectively). Most pudrat leaders (89 percent) worked in agriculture prior to the formation of the pudrat for an average of 17 years, of which 14 were spent on the same farm as at present. Possibly due to the recent creation of most work units, 75 percent of pudrat leaders served (in all spheres of the economy) as rank and file workers prior to the creation of the pudrat, rather than as a leader of a brigade or other work unit (25 percent).

Shares in Large Farm Enterprises

Farmers that have been members of *shirkats* or farm conglomerates for more than three years receive land and property shares in the shirkat, from which they are to be paid dividends at the end of the year if the farm turns a profit. Shares are derived from the "divisible fund" which comprises 40-60 percent of the value of the *shirkat's* property. Distribution of shares is designed to give them a sense or proprietorship in the *shirkat*.

The policy of distributing shares is defeated by its piecemeal implementation. The majority of *pudrat* leaders surveyed (61 percent) do not hold a share (not to speak of rank and file workers). Of the minority of *pudrat* leaders that hold shares, most do not know its value (55 percent of those with property shares and 63 percent of those with land shares), in part because only slightly over half of them actually kept the certificate for their share at home (the rest are on file at the *shirkat* administration or elsewhere). Moreover, only 8 percent of shareholders received a dividend from their share in 2000. (Obtaining dividends is contingent upon the farm turning a profit. During the course of interviews many expressed pessimism that they would receive dividends if their farm turned a profit.) Under such conditions, it is unlikely that shares have any significant effect on the proprietary sense of the shareholders.

Contracting and land allocation within large farm enterprises

Land is allocated to *pudrats* based on two contracting agreements, one of which is a lease agreement, and the other of which is concluded annually for production on the farm's land. Almost all (98 percent) of the *pudrats* and other work units surveyed have a lease agreement. The average length of lease agreement for *shirkat* farmers in the RESP districts is 5.3 years, although there are dramatic dissimilarities among districts and types of work units. Whereas *pudrats* have an average lease agreement of 5.4 years, brigades conclude agreements for an average of 8.5 years.

Lease agreements are largely a formality—land is actually allocated based on the annual production plan, in which the state, through the *shirkats*, decides what will be planted, where, and by whom. In early spring, the farm director and a group of the head administrators (typically including the agronomist, economist, land surveyor, and head *pudratchis*) decide what and where to sow based on the production plan given to them by the *raysel'vodkhoz*, as well as labor capacity of the *pudrats*. Use of land for purposes other than in the plan is forbidden. Inputs and irrigation water for crop cultivation are calculated for each contract, based on norms established by MAWR. During this process, one's ability to peddle influence with the farm director and his administration are critical. In other cases, *pudrats* bribe the director with a sheep or goat to obtain good plots and/or a favorable contract.

Household plots of shirkat farmers

Aside from land included in production plans, members of large farm enterprises hold a small household plot, to which they have a formal right of use for life, and sometimes an additional garden plot. Neither these plots is subject to production plans. In the RESP districts, 98 percent of *shirkat* farmers hold a household plot, and 15 percent farm an additional plot. The latter are typically acquired through another family member, such as wife or brother, who had a right to the plot by virtue of their position within the *shirkat*. The size of household and additional plots is much smaller than *pudrat* fields, an average of 0.17 ha. The house, storehouses, stables, and other buildings occupy an average of 27 percent of the area of household plots. The average distance of additional plots from the home is 2 kilometers, although distances vary greatly, depending on the locale. The dimension of garden plots ranges from an average of 0.10 ha in Marhamat District to 0.27 ha in Ellikkala District.

Becoming a private farmer

Many *shirkat* farmers in Uzbekistan want to begin working as private farmers—over 60 percent responded that they would like to do so. However, this is a largely unattainable goal for most of them. Indeed, 16 percent of this number have already tried and failed—a surprisingly high number, given that *shirkat* farmers are well aware of the obstacles they face in trying to break out of the *shirkat* system.

There are many reasons for the discrepancy between the number of *shirkat* farmers (and others) desiring to become a private farmer and those succeeding. Chief among these is the difficulty of obtaining land, which was the most frequently mentioned problem by *shirkat* survey respondents (42 percent of those that do want to become a private farmer and 24 percent of those that do not). Quite often authorities are reluctant to hand over land to private farmers without some sort of kickback—among the *shirkat* farmers that expressed a wish to become private farmers, 15.9 percent mentioned the need to bribe officials for land registration (the figure for the rest of *shirkat* farmers surveyed is 7 percent).

The land that private farmers receive after registration is often of poor quality, because the *shirkats* propose which land to allocate, and they do so in their own interest. Of the land received by private farmer respondents (shown in the table below), 23 percent required amelioration

(meaning it was unfit for cultivation without amelioration) and 17 percent was not irrigated at all. Moreover, in the course of interviews many private farmers emphasized that the amount of land they received was less than the amount originally promised (sometimes by 40-50 percent).

Most *shirkat* farmers ranked the lack of start-up capital as the second most difficult barrier to overcome in beginning private farm operations (40 percent of those desiring and 25 percent of those not desiring to become private farmers). This is due to the fact that they have low incomes and little access to credit from banks at reasonable terms (see below).

Third among the difficulties ranked by *shirkat* farmers is the tedious and bureaucratic nature of registration (17 percent of *shirkat* farmers that want to start private farm operations and 9 percent of those that do not). According to the law, registration as a private farm must be completed within the course of one and a half months. However, due to the complexity of procedures and reluctance of local authorities to grant permission without special favors, registration often requires 5-6 months. In one case described by a bank manager in Ellikkala District, the process required a year:

The land registration process is complex, and farmers encounter many problems along the way. Among these difficulties are the unwillingness of *shirkats* to give up productive land, the propensity of local officials for trading bribes and/or favors for approval of various documents, the farmers' own unfamiliarity with business plans and the required paperwork and administrative procedures, and the fact that many decisions are not made in the amount of time dictated by law.

During the process of registering as a private farmer, informal connections are critical. Fourteen percent of *shirkat* farmer respondents wishing to become a private farmer and 7 percent of those that do not listed lack of connections as a hindrance. Because connections are so important, many of those who succeed in registering are well-placed individuals who can peddle influence and/or bribe their way through the gauntlet of registration procedures. This is evident from the profile of respondents—of the 77 percent of private farmers that worked in a kolkhoz or other large farm enterprise previously, only 19 percent were ordinary farm workers and 10 percent tractor drivers, while the rest held middle or senior level positions (brigade leader, agronomist, irrigator, director, etc.). For those that previously served in agriculture as well as other sectors of the economy, 64 percent of private farmers were in middle or senior level positions. It is likely that many also have powerful relatives capable of sheltering them from arbitrary interference on the part of the authorities.

It is significant that the *shirkat* respondents that have no wish to become private farmers explained their position primarily in terms of external factors, rather than the nature of private farming per se. As noted in the foregoing analysis, the most frequent responses in this group were lack of start-up capital (25 percent) a difficulty in obtaining land (24 percent). Moreover, 17 percent mentioned that they "don't have the required knowledge," which probably refers to unfamiliarity with independent business practices and entrepreneurship. Only the fourth most frequent answer by this group, "private farming requires too much effort and stress" (14 percent), indicates a real distaste for farming outside the *shirkat* system.

Private and dekhan farmers.

The recent development of private and (registered) *dekhan* farms is apparent from the short period of time that they have been in operation. Private farms surveyed have been in operations for an average of 3.6 years (ranging from 2.7 years in Ellikkala District to 4.9 in Ahangaran District). Registered *dekhan* farms were more recently created, i.e. registered as "legal entities," an average of 1.7 years ago. Unregistered *dekhan* farms have been in existence for much longer, an average of 11.8 years. This figure is likely even greater, since 41 percent of unregistered *dekhan* farmers did not know, i.e. could not remember, when their farm began operations.

The average size of private farms surveyed is 24 ha, almost twice that of *pudrats*, of which 20 ha is irrigated. However, the median size of private farms is 14 ha, and the majority of farms hold 10 ha. As in the case of pudrats, the regional variations are substantial.

Almost all private (99.6 percent) and all *dekhan* farms produce crops on a household garden plot. Private farmers probably obtained their plots during their previous work in a large farm enterprise, while *dekhan* farms did the same and now rely on garden plots entirely for cropping. Aside from the household garden plot, 28.6 percent of *dekhan* farmers and 16.7 percent of private farmers hold an additional garden plot, a higher percentage than that of *shirkat* farmers (15 percent). The discrepancy speaks of the influence of private and *dekhan* farmers by virtue of their previous or present positions within large farm enterprises.

Household plot holdings average 0.18 ha for private farms and 0.26 ha for *dekhan* farms. Houses and other buildings occupy 30.6 percent of household plots of private farmers, while the corresponding figure for *dekhan* farms is much less (19 percent). Additional plots are typically larger than household plots (0.26 ha for private farmers and 0.30 ha for *dekhan* farms, with an average distance from home of 1.9 and 1.6 kilometers, respectively). The average size of plot holdings of private and *dekhan* farms is larger than that of *shirkat* households, which is probably a function of the greater influence of the former groups with the local authorities.

Although the Government of Uzbekistan claims that around half of *dekhan* farms have been registered, this is not the case in the RESP districts. In all districts except Ellikkala and Ahangaran, over 90 percent of *dekhan* farms are unregistered ("physical" entities in local legal parlance), and only in Ellikkala District are the majority registered as "legal" (formal) entities. Thus, the majority of *dekhan* farms prefer to remain outside of the purview of state taxation, banks, etc. and forego the "benefits" of registration with the state (having a bank account, obtaining credit on formal terms, concluding formally legal contracts with firms and organizations, etc.).

The number of workers per hectare on private farms, presented in the table below, is lower than for *pudrats* (9.56). This indicator is much higher for *dekhan* farms, because garden plots constitute the entire farm, rather than being a subsidiary source of income. The disparity in the number of workers on irrigated and non-irrigated land is misleading, with the exception of Ahangaran District, the only district where private farms produced crops on non-irrigated land in 2000, and Ellikkala District, where private farms hold more pasture than elsewhere. For both

private and *dekhan* farms, there are more workers per hectare in Marhamat and Sherabad Districts than elsewhere.

Families manage private and *dekhan* farms, with the former employing many more persons outside of the household (see the following table). The number of workers, as well as the percentage of relatives and other workers employed on private farms is much greater than on *dekhan* farms—workers outside the family comprise 21 percent of total private farm workers, while relatives outside the immediate household comprise 24 percent of total labor resources. Labor on *dekhan* farms is much more highly concentrated within the immediate household (92.5 percent of workforce). The greater number of male workers employed on private farms reflects the greater number of hired workers (the "other" category), most of whom are men.

The average age of the head of both private and *dekhan* farms is 42 years, 18 of which have been spent working in agriculture. Most of them are male (94 percent for private farms and 90 percent for *dekhan* farms). Private and *dekhan* farm heads are more educated than pudrat leaders: 38 percent of private farmers and 21 percent of private farms have higher education, quite often in economics or agriculture. A smaller percentage of private farm heads have secondary or lower education than their *dekhan* counterparts (27 percent and 41 percent, respectively; the figures for post-secondary education are 35 percent and 39 percent, respectively).

Among the heads of private and *dekhan* farms, 10 percent and 14 percent, respectively, still work on a *shirkat*, in addition to running a farm of their own (of which 58 percent of private farmers are either farm directors or heads of a department, 8 percent are specialists, and 19 percent are heads of *pudrats*; the corresponding figures for *dekhan* farmers are 13 percent, 42 percent, and 23 percent). A low percentage of private farmers (7 percent) holds second jobs outside of their farm and do not "moonlight" in *shirkats*, compared with 30 percent of *dekhan* farmers, who compensate for the small area of land that they cultivate by working off-farm. Among these *dekhan* farmers, 31 percent work in education, 24 percent in government, and 15 percent in industry and commerce, and most are specialists (35 percent) or directors or heads of a production department (31 percent).

Land use within private and dekhan farms

Although the law permits private farms to "independently organize farm production," they remain subject to annual state orders for crops. All private farms produce cotton according to state production orders, while this figure for winter wheat and spring wheat and rice is 90 percent, 71 percent, and 58 percent, respectively. Although by law state orders exist for only these crops, in fact many respondents noted that they are given plans for other crops, most notably fruits and melons.

Production orders are transmitted through various channels. The *raysel'vodkhoz* determines plans, while the channel of transmission varies. Most commonly this is the Association of *Dekhan* and Private Farmers, although in some cases the *shirkat* will deliver a plan. The category of "other" might include the *hakimiyat* itself or, in the case of fruits, Uzbekbirlashuw, a quasistate agro-processing conglomerate.

If a private farmer does not abide by the plan, the *hakimiyat* threatens closure of the farm or even criminal prosecution. *Dekhan* farms are not subject to state production plans. They can allocate land to whichever use they desire. The only constraints are the size of their farms, the location of multiple plots, irrigation water, inputs, working capital, and labor.

ANNEX D: CONTACT LIST FOR UZBEKISTAN

USAID/Tashkent

James Goggin, Country Representative (Uzbekistan) Alexander Kalashnikov, Project Management Specialist Ulugbek Isayev, Project Management Specialist SHARK Building, 4th Floor 41 Buyuk Turon Street Tashkent, Uzbekistan

Tel: (998-71)-120-63-09 Fax: (999-71)-133-76-56 Email: james@usaid.uz

Pragma – Enterprise Development Center - Tashkent

Patrick Dieterich, Director Makhamatjon Kasimov, Agribusiness Advisor Shaun Doherty, Head of Office, Ferghana 39, 40, 41 Zarkaynar Street 700011, Tashkent, Uzbekistan

Tel: (998-71)-120-74-28/29/30 Fax: (998-71)-120-74-26

Fax. (996-71)-120-74-20

Email: patrick@pragma.buzton.com

Pragma Corp Itil Asmon, Regional Agribusiness specialist 30, Kasimov str. Fergana 712000

Tel: 998-732 249038, 24 78 72 Email: iasmon@pragma.kg

Mercy Corps – Peaceful Communities Initiative (PCI)

John Strickland, Project Director 52 v, Musaev Street Andijan City 710020, Uzbekistan

Tel.: (998-742)-244-677 Fax.: (998-742)-245-185 Email: strick@jahon.uz

PA Consulting - Central Asian Natural Resources Management Program - Tashkent

Randolph Bruton, First Deputy Chief of Party

John Baxter, Water Task Leaders 72, Kodyra Makhsumova Street 700000, Tashkent, Uzbekistan

Tel: (998-71)-133-71-17

(998-71)-120-60-60

Fax: (998-71)-120-60-76 Email: rcburton@nrmp.uz Email: Baxter@nrmp.uz

Consulting Group on International Agricultural Research – Tashkent

CGIAR Program for Central Asia and the Caucasus

Dr. Raj Paroda, Director

P.O. Box 4564

700000, Tashkent, Uzbekistan Tel: (998-71)-137-21-30 Fax: (998-71)-120-71-25

Email: pfu-tashkent@cgiar.org.uz

World Council of Credit Unions - Tashkent

Francis Gonzales, Project Director

6, Uzbekistan Avenue

700001, Tashkent, Uzbekistan Te;.: (998-71)-136-37-42 Fax.: (998-71)-136-37-87 Email: fgonzales@woccu.org

Small Enterprise Assistance Fund (SEAF) - SME Investment management

Donald Nicholson, Regional Director

27, Rakatboshi Street

700031, Tashkent, Uzbekistan Tel.: (998-71)-139-16-20/80 Fax.: (998071)-139-14-59 Email: drntwo@hotmail.com

Banking Support Project – Bearing Point

Michael Crossley, Resident Financial Regulatory Specialist

6, Uzbekistan Street

700001, Tashkent, Uzbekistan Tel.: (998-71)-152-58-64 Fax.: (998-71)-152-58-41

Email: Michael crossley@hotmail.com

The World Bank - Tashkent

Dilshod T. Khidirov, Operations Officer for Agriculture

43, Acedemician Suleimanova Street

700017, Tashkent, Uzbekistan Tel: (998-71)-139-49-88

(998-71)-120-62-05

Fax: (998-71)-120-62-15

Email: dkhidirov@worldbank.org

EU-TACIS- Tashkent - Support to the National Coordinating Unit

Martin Horseling, Team Leader

C/O Department of the Cabinet of Ministers of External Economic Relations and Foreign Investments

4, Tarasa Schevchenko Street

700029, Tashkent, Uzbekistan

Tel: (998-71)-139-15-33 Fax: (998-71)-120-65-88 Email: martin@tacis.uz

Asian Development Bank - Tashkent

Rustam Abdukayumov, Portfolio Management Officer

1, Khodjaeva Street

700027, Tashkent, Uzbekistan

Tel: (998-71)-120-79-21/22/24

Fax: (998-71)-120-79-23 Email: rabdukayumov@adb.org

EU-TACIS- Tashkent - Support for the Implementation of the Partnership and Cooperation Agreement between the EU and Uzbekistan

Adrain Strain, Team Leader 4, Tarasa Schevchenko Street 700029, Tashkent, Uzbekistan Tel: (998-71)-139-11-49 Fax: (998-71)-120-65-84 Email: adrianaa@pca.uz

EU Unit

Maeling, Team Leader

4, Tarasa Schevchenko Street 700029, Tashkent, Uzbekistan Tel: (998-71)-139-15-33 Fax: (998-71)-120-65-88 Email: martin@tacis.uz

Ministry of Agriculture and Water Resources

Abduvahid Mamtkulovich Jurayev, Minister

Tel: (998-71)-412693

Ashikmamut Ibraimov, Division Head

Tel: (998-71)-412714

Bakhrom Ulmasovich Khusenov, Juridical Department Head

Tel: (998-71)-1442816, 411986

Navoyi str 4, Tashkent

Asian Development Bank

Rustam Abdukayumov, Portfolio Management Officer

1, Khodjaeva Str. Tashkent Tel: (998-71)-1207921/24

Email: rabdukayumov@adb.org

World Bank

Anatoly N. Krutov, Consultant, Water and Environment Management 43, Acad. Suleimanova Str.

Tashkent

Tel: (998-71)-1394988

Email: akrutov@worldbank.org

ankrutov@yahoo.com

Tashkent Institute of Irrigation and Ag Mechanization

Abdulkhakim T. Salokhidinov, Dean, Rural Potable Water and Environment

Tel: (998-71)-1371926

39, Kari-Niazov Str., Tashkent

DHV Agriculture & Natural Resources

Benjamin Roelofsen, Institutional Specialist Valeriy Lapigin, Sociologist Gert Uitenboogaart, Chief of Party 1 U. Yusupov St. Tashkent 700 128

Tel: (998-71)-1446319 Email: amuzhang@bcc.com.uz

ICARDA

Raj Paroda, head CGIAR program for CAC region

Murtazaeva 6, Tashkent

Tel: (998-71)-1372130, 1372169 Email: pfu-tashkent@cgiar.org.uz

IWMI

Iskanadar Abdulaev, Project Specialist Mehmood ul Hassan, Sociologist Murtazaeva 6, Tashkent

Tel: (998-71)-1370445 Email: i.abdulaev@cgiar.org

Board of Agriculture and Water of Fergana Region

Akram M. Madaminov, Vice Chair 64 Al Fargoniy St., Fergana City Fazljohn Rasulev, Deputy Chief Oblvodhoz, MOAWR Yazovan Raion, Okolty WUA staff